# Boys, Literacy and Schooling 

## EXPANDING THE REPERTOIRES OF PRACTICE

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Printed by J.S. McMillan Printing Group

Funding for this research report was provided by the Commonwealth Department of Education, Science and Training under the Grants for National Literacy and Numeracy Strategies and Projects Programme.
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ISBN: 1863665420

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## Participants

The participation of principals, teachers and parents from the schools involved in the research is very much appreciated. Special thanks to the teachers who participated in Phase 1 and Phase 2 of the study, all of whom contributed extended time and effort in providing data and feedback to the research team. Thanks also to personnel from jurisdictions who provided the research team with access to data and information that was essential to the quantitative analysis undertaken within the study.

## 1

## EXECUTIVE SUMMARY

Boys, Literacy and Schooling: Expanding the Repertoires of Practice describes an inquiry into the bases of the common finding that boys indicate lower literacy scores than girls on literacy tests and assessments. It explores the possible bases for that finding and offers the beginnings of an educational response. The following general questions guided the design of this inquiry:

- Which boys are underachieving with respect to literacy learning and why?
- What is known about underachieving boys and their literacy development, including:
- What factors influence underachievement in boys' literacy performance and development?
- Which existing practices in teaching educationally underachieving boys are consistent with current research on good literacy teaching?
- What strategies have proven effective in improving the literacy outcomes of boys?

The report attempts to provide reasonable and educationally productive answers to these questions, through:

- using a repertoire of quantitative and qualitative data collection and analytic techniques;
- employing a method of establishing practices that benefit boys' learning;
- considering the hypothesis that a range of effective and focused pedagogies assists boys and girls in their literacy learning;
- interrelating and cross-referencing professional and research-based knowledge on the matter of boys and literacy; and
- implementing and evaluating a variety of brief interventions aimed at improving boys' literacy learning.


## Methods

In Phase 1 of the study, three surveys were conducted of the views of primary-school teachers and parents of primary-school students:

1 An electronically managed survey of primary-school teachers' beliefs about the issue of boys and literacy, including their views of appropriate and effective programs, strategies and classroom organisation;
2 A pencil-and-paper survey of the perceptions of parents of primaryschool students of how literacy performance can be enhanced at school and at home; and

3 An electronic discussion list where matters relating to the literacy education of boys were canvassed.

As well, face-to-face interviews were conducted with a year $2 / 3$ teacher and a year $6 / 7$ teacher in each of 24 schools. In most cases, a senior member of the school's administration was also interviewed. The 24 primary schools in Queensland, New South Wales and Tasmania represented a wide variety of social, economic and geographic contexts, and a range of student first-language backgrounds.

Phase 2 focused on developing and trialling classroom interventions, and evaluating and documenting their effectiveness. From the 24 schools ( 48 teachers) of Phase 1 of the study, 12 schools ( 24 teachers) were selected to continue participating in Phase 2. The schools were selected to represent a range of educational settings across the three participating States, especially in regard to:

- a range of socio-economic settings;
- schools and communities with varying levels of students whose first language background is not English;
- a mix of inner-suburban, fringe-suburban and rural-provincial schools; and
- a mix of approaches from mixed-gender classrooms, single-gender schools and classrooms in which boys and girls were separated for some literacy-related activities.

Phase 2 commenced with a training day aimed at enabling the participating teachers to:

- extend their understandings of links between gender and literacy;
- re/search and reformulate their current programs and practices;
- develop a program of action and a method of monitoring, evaluating and reporting that program of action.

The teachers then carried out their planned classroom strategies in consultation with the research team.

## Classroom interventions

During the intervention phase the 24 teachers designed and trialled a variety of intervention strategies. Rather than describe these interventions as a set of 24 minicase studies, for the purposes of reporting and of meaning making, we have clustered the interventions into common themes drawing on an interpretative framework based on three kinds of repertoires of practice, expansions of which were, in one way or another, the aims of all the interventions. These three repertoires we have termed:

- a repertoire for (re)presenting the self. This deals with the ways in which students, with a focus on the boys, can experiment with a range of possibilities for (re)presenting themselves in the classroom, and with acceptable ways of conducting their presence and activity within the school. An understanding of the ways in which
masculinity is 'performed' and 'enacted' through the body is essential here if boys are to extend their repertoires of the self.

As detailed in Chapter 6, teachers attempted to expand repertoires for presenting the self by, for example:

- reconfiguring classroom literacy as active and embodied;
- capitalising on choice and personal experience; and
- focusing on boys' sense of self.
- a repertoire for relating. This covers the social relations of school work, including the extent to which students are allowed to adopt various positions of power, authority and agency in the classroom, including greater latitude in the selection of materials, the forms of tasks, the organisation of the work, and the means of assessment. It means addressing the ways that masculinity endorses and authorises particular relationship modes, and how these modes can be extended and broadened. Inevitably, this repertoire has close links with the expansion of repertoires of culture for boys and with repertoires for (re)presenting the self.

As detailed in Chapter 6, teachers attempted to expand repertoires for relating by positioning boys as:

- 'learners' in literacy classrooms; and
- 'class participants' in literacy classrooms.
- a repertoire for engaging with and negotiating the culture. This entails looking beyond standard school to literacy-related materials from other cultural sites and formations, including contemporary commercial youth culture, integrating a wide range of modes of expression (oral, written, electronic, musical, visual, and so on), and cross-cultural or imagined (for example, fantasy) settings. For boys it also entails negotiating the hyper-masculine world, along with what it means to be male in such a world, and the meanings and ways of being constructed through such a world.

As detailed in Chapter 6, teachers attempted to expand repertoires for engaging cultures by focusing on, for example:

- the 'real' and everyday;
- popular culture materials;
- electronic technologies; and
- multimedia and multimodal work.

Most of the teachers appreciated and worked on the inter-relatedness of these repertoires. The general understanding was that, as the classroom broadens one or other of these repertoires, it has consequences for the others.

## Key findings

## From interviews with teachers and school principals

As detailed in Chapter 5, interview materials generated from the 24 schools of Phase 1 of the study produced multi-layered data about the observations and explanations offered by teachers for boys' poor engagement and achievement in literacy.

Teachers observed that:

- boys were less successful than girls in their ways of negotiating and participating in conventional literacy classrooms and conventional literacy activities;
- boys showed a general lack of interest in print-based reading and writing activities;
- boys demonstrated a perceived lack of purpose and relevance in school work;
- boys made 'minimalistic' efforts to complete and present school literacy tasks;
- boys were disruptive, easily distracted and difficult to motivate within the classroom; and that
- boys lacked self-esteem and confidence as learners.

However teachers also observed several features of boys' classroom behaviour which made boys far more successful in terms of engaging with the multimodal literacies and literacy contexts of the future. Teachers observed that:

- boys had a strong interest in electronic and graphic forms of literate practice;
- boys were willing to 'do' literacy in active, public ways (such as debating, drama, public speaking); and that
- boys were eager to engage with 'real-life' literacy contexts and 'reallife' literacy practices.

Explanations that teachers offered about boys' lack of engagement and achievement in conventional literacy work drew from a variety of popular discourses and positions, most commonly:

- biology;
- the influence of families and close personal networks;
- cultural differences in orientation to schools and the valuing of school learning;
- the interactive effects of ability and home environment;
- the availability of male role-models in young boys' lives inside and outside school;
- popular social constructions of gender and the influence of the media; and
- the influence of teachers and of schools themselves.


## From survey data

Findings from the surveys of teachers and parents reflected the kinds of discourses that are commonly available for teachers and parents to draw upon. Our approach has not been to critique those views by some consideration of their empirical status; rather, we take these expressions to be a representation of the discourses widely available in the subculture of teaching and in the community at large.

As detailed in Chapter 4, we draw two major findings from the explorations of teachers' and parents' views on literacy performance in school and its association with the particular problems of boys:

- Literacy performance, learning and development are widely seen to relate to pre-conditions at home and to conditions out of school.
- Boys are ascribed specific attributes that distinguish them from girls and that are related to literacy learning and development for school. These included:
- higher activity levels;
- competitiveness;
- reactions to criticism, related to self-esteem problems; and
- greater susceptibility to a variety of psychological, perceptual, linguistic and social 'weaknesses'.

It seems that these ways of thinking are powerful and prevalent among teachers and parents. They are compatible as well with discourses and presumptions widely available in the culture and readily evident in the popular media and in many folk and professional accounts of boys, schooling and literacy. While the accuracy and productivity of these ways of thinking has long been debated, they appear strongly in the rationales developed by the teachers who took part in the classroom interventions of Phase 2 of the study, and thus they form a significant context for any understanding or evaluation of those interventions.

## From data related to the four-roles model

Before and after their classroom interventions, teachers were asked to estimate the number of students in their class whom they considered would struggle with the literacy demands of the school year ahead. The format for these estimates was the 'four-roles model' of literacy, which posits four central domains of competence that interact in the development of appropriate and accurate literacy capability: breaking the codes of the graphic message, participating in the explicit and implicit meaning systems within the text, using textual forms in ways appropriate to a range of purposeful settings, and critically analysing the contexts of texts from a range of positions. Teachers provided separate estimates for reading and for writing. The findings below are presented as indicative of the teachers' perceptions of students' progress within the limited time-frame (6-9 weeks) of the classroom intervention:

- Teachers saw their interventions as lowering the number of students whose literacy abilities would cause them to experience difficulties relating to literacy in the coming school year.
- While several teachers registered that no evident gains had been made on some of the criteria, and two teachers noted negative gains
on one each of the criteria, most of the teachers reported positive effects for the intervention.

Two distinct trends are evident in the teachers' estimates:

- First, students were generally rated as changing less on their codebreaking skills as a result of the intervention than on the other domains. The students in these classes would be expected to have received many learning experiences related to cracking the codes of written English. This probably means that a higher entry baseline is established for this aspect of literacy functioning than for the other domains. In general, highest gains were noted for the text-user and text-analyst categories. Several teachers indicated that they had been concerned about the students' limited exposure to a range of genres and text-types, and had perceived the urgent need to enhance their students' critical reading and writing capabilities.
- Secondly, boys' gains were generally reported to have been more substantial than those of girls. Indeed, there is only one instance of the reverse - text-analysis skills in year $2 / 3$ writing. Since the interventions were aimed specifically at improving boys' literacy performance, this is not surprising. It is worth noting, however, that there was a decrease in the number of girls estimated to be facing difficulties after the intervention, on all measures and areas and year levels, with the exception of code-breaking in reading for year $2 / 3$ girls (zero change estimated).

While there is a need for caution in the interpretation of these findings, the results are nonetheless supportive of the proposition that even these short interventions appeared to the teachers to have had some positive effects.

## From teachers' comments on the efficacy of the classroom interventions

When asked to list the learning outcomes associated with their interventions, overwhelmingly, teachers reported increased engagement in literacy learning among boys and improved confidence in their uptake of literate practices. Engagement and confidence were the two most frequently cited outcomes distilled from teachers' written reports (and also from the interview data collected at the end of the study). Teachers also reported improvements in students':

- vocabulary;
- overall quality of literacy work;
- behaviour and attitude; and
- capacity to operate as critically literate text analysts.

On occasions, teachers expressed surprise at unanticipated improvements - ripple effects - that appeared to spring from strategies that they had trialled. Most teachers did not hesitate when asked to document observed changes in individual boys in their class.

Importantly, no teacher reported that the intervention strategies that they trialled had jeopardised girls' opportunities to learn or to participate in the literate practices of the classroom. Those who thought that their interventions had worked for boys, also thought that they had worked for girls. In teachers' observations, it simply was not the case that girls were excluded through the processes they employed to engage more boys. The improved pedagogy seemed to enfranchise both boys and girls.

## Recommendations

Our experiences on this project of working together with teachers and school principals in schools across the three States leads us to make the following recommendations:

Boys are not all the same and cannot be treated as an homogeneous group. They bring different social and cultural backgrounds to the literacy classroom and these need to be given serious consideration. However many boys share some common experiences of 'being a boy' in Australian society, and are likely to be influenced by dominant discourses of masculinity. The ways in which these discourses affect the life and learning of a particular boy in a particular classroom and community are always matters for empirical inquiry, calling for ongoing observation and analysis by teachers and researchers.

## Recommendation 1:

That, as part of their ongoing community analyses, schools and teachers acknowledge and explore the varied social, cultural and ethnic backgrounds that boys bring with them to the literacy classroom, paying particular attention to the ways that constructions of masculinity influence boys' behaviour and learning in literacy.

We have taken a practice- and futures-oriented approach to literacy that attempts to take balanced and realistic consideration of the communicative tasks that learners face. To become functional and independent members of literacy-saturated information societies, students must master a variety of forms of communication. The following definition of literacy is compatible with our approach in this study:

Literacy is the flexible and sustainable mastery of a repertoire of practices with the texts of traditional and new communications technologies via spoken language, print, and multimedia.
(Luke, Freebody \& Land 2000, p. 20)
'Literacy' is thus seen as referring to particular forms of communication that themselves entail particular valued repertoires of physical, psychological, social and cultural practice, demeanour and disposition. Effective literacy education therefore
involves practice in these valued repertoires, in the context of accessing the powerful curricular ways of knowing and finding out about the world, and in the knowledge that the communicational environment in which young Australians live is undergoing a process of rapid cultural and technological change.

For policy-makers, this revisiting of literacy means a realistic interrogation of currently held definitions of literacy, explicit or otherwise, about whether those definitions can do the work of addressing the genuine literacy demands that young people do and will face. Assessment regimes and professional development need explicitly to incorporate but expand on the 'old literacy basics' if they are to have anything other than short-term, test-based consequences for students and schoolleavers.

For teachers, this means developing and sharing a vocabulary for debating and working up school- and teacher-based pedagogies and assessment and monitoring programs. It means as well an urgent need to consider, debate and research the relationships between, on the one hand, teaching strategies and assessment routines and, on the other, students' systematic apprenticeship in the forms of curricular knowledge.

## Recommendation 2

> That schools, teachers, researchers and policy-makers adopt a practice- and futures-oriented approach to literacy in their work to improve boys' literacy outcomes.

When working to improve boys' literacy outcomes, teachers need to employ a range of effective pedagogical strategies that will engage students actively, purposefully and democratically in an effort to position them as successful literacy learners.

## Recommendation 3

That teachers adopt a range of pedagogical strategies in the literacy classroom that are designed to promote an active, purposeful and democratic learning environment.

In conceptualising an approach to boys' literacy learning, teachers should consider the potential of expanding the repertoires of practice available to boys in literacy classrooms. This will mean focusing on expanding the range of practices available for (re)presenting the self, for relating to others, and for engaging with cultures. It means therefore developing and sharing a vocabulary for understanding, debating and acting on sets of ideas that relate directly to the social dynamics of classrooms. These ideas
also need to inform policy and research initiatives in the area of literacy, rather than being seen as important but separate, disconnected considerations.

Classrooms must accommodate a broader range of (re)presentation modes of 'the self' if boys are to engage and achieve in literacy classrooms. Teachers will need to provide for more active and dynamic expression, to provide for more hands-on opportunities to learn, to be responsive to choice and personal experience, and to focus on maintaining a positive sense of self. The ways in which masculinity is 'performed' and 'enacted' through the body need also to be considered as part of these modes of (re)presentation of the self.

## Recommendation 4

> That teachers construct literacy classrooms as active environments for learning by maximising 'hands-on' learning through multiple textual modes; by providing opportunities for students to take control of their own learning; by taking account of students' backgrounds and experiences; and by focusing on maintaining a productive sense of self among students as literacy learners.

Classrooms must accommodate a broader range of relationship modes if boys are to engage and achieve in literacy classrooms. The social relations of school work need to be reconfigured so that students are allowed to adopt different positions of power, authority and agency in the classroom. For boys, in particular, this may mean supporting them to learn how to operate both as learners and as participants in the literacy classroom and constructing a classroom environment where students' knowledges and skills are valued and respected.

## Recommendation 5

That teachers construct literacy classrooms as democratic spaces where authority and agency are shared; where students are treated with dignity and respect; where students' knowledges, opinions and contributions are valued; and where students learn to work collaboratively and cooperatively.

Classrooms must accommodate a broader repertoire for engaging and negotiating cultural knowledges and meanings if students are to achieve in literacy classrooms. This will involve working with literacy-related materials from a range of cultural sites and formations, including contemporary commercial youth cultures and a wider range of modes of expression including oral, written, electronic and visual. For boys in
particular a focus on multimodal texts and technologies may be beneficial in improving literacy outcomes. With the importation of contemporary commercial youth culture into the classroom come both the opportunity and responsibility to engage its powerful discourses - about gender, race, class, sexual orientation, (dis)ability and so on - in ways that make those discourses objects of critical study. Within the particular terms of this study, this means explicit considerations of how both popular and curricular texts may, whatever else they may do, reinforce the already heavily patrolled gender borders of daily social experience.

## Recommendation 6


#### Abstract

That teachers engage and work with cultural knowledges and meanings by focusing on the cultures of the 'real' and the everyday, popular culture, electronic technologies and multimediated texts. In doing this, teachers need to consider systematically the ways in which such activities can connect productively with curricular learning, and ways in which critical, analytic work can be developed in the use of potentially misogynistic and institutionally hostile materials.


Teachers cannot pursue a boys and literacy agenda by themselves. They must have systems support in terms of staffing, professional development, technology support and resources.

## Recommendation 7

That, to improve literacy outcomes for boys, schools need school systems' cooperation to provide increased levels of learning support, professional development and technology infrastructure and support.

Further research in the boys and literacy field should address the potential of the theoretical framework proposed in this study of expanding repertoires of practice and its association with improved literacy outcomes for boys. Exploring the potential for a framework such as the one developed for this study brings with it a number of associated research design requirements, among them:

- the systematic construction of samples to reflect a range of social, cultural and demographic factors that may be associated with the development of different forms of masculinity;
- the construction of epidemiology-styled, longitudinal studies that allow:
- the literacy-learning consequences of a variety of school and classroom differences to be documented;
- different ways in which curricular literacies are engaged and mastered to become evident over time; and
- a view of just how significant traditional 'target' groupings are in their 'fully aggregated', interactive, natural environments as predictors of the literacy learning progress of various categories of students that are not well served by current conventional classroom experience; and
- the explicit interplay of quantitative and qualitative analyses of data collected in different sites of cultural and literacy learning for boys (schools, homes, popular media experiences, and so on).


## Recommendation 8

That future research address the effectiveness of the three repertoires model - repertoires for (re)presenting the self; repertoires for relating; repertoires for engaging with and negotiating cultural knowledges and meanings - for improving literacy outcomes for boys.

## 2

## Introduction

## Aims

This report describes an inquiry into the bases of the common finding that boys indicate lower literacy scores than girls on literacy tests and assessments. It explores the possible bases for that finding and offers the beginnings of an educational response. The following general questions guided the design of this inquiry:

- Which boys are underachieving with respect to literacy learning and why?
- What is known about underachieving boys and their literacy development, including:
- What factors influence underachievement in boys' literacy performance and development?
- Which existing practices in teaching educationally underachieving boys are consistent with current research on good literacy teaching?
- What strategies have proven effective in improving the literacy outcomes of boys?

The report attempts to provide reasonable and educationally productive answers to these questions through:

- using quantitative and qualitative data collection and analytic techniques;
- employing a framework for establishing practices that benefit boys' learning;
- considering the hypothesis that a range of effective and focused pedagogies assists boys and girls in their literacy learning;
- interrelating and cross-referencing professional and research-based knowledge on the matter of boys and literacy; and
- implementing and evaluating a variety of brief interventions aimed at improving boys' literacy learning.


## BACKGROUND TO THE STUDY

On the matter of boys and literacy, two observations arise from recent Australian research. The first is that there is a relatively small but systematic disadvantage shown by boys on some tests of literacy in early schooling. The second is that gender interacts with other demographic and individual indicators in the prediction of performance on literacy tests. In the recent national survey of students' literacy performance at years 3 and 5 conducted by the Australian Council for Educational Research (Masters \& Forster 1997), it is reported that 'the majority of students are achieving well, with many students working well ahead of expectations' (p. x), but
that, overall, boys show slightly lower scores on the various assessments administered. The executive summary of this report concludes:

> Gender differences in literacy achievement are greater for Writing and Speaking (the expressive modes of literacy) than for Reading, Listening and Viewing (the receptive modes). The greatest gender difference occurs in Writing and the least for Viewing. This gender difference in achievement does not widen significantly between Year 3 and Year 5. The differences between boys' and girls' levels of literacy achievement are greater among students from low socioeconomic backgrounds than among students from other socioeconomic groups. (p. vii)

Over the last two decades, many studies in OECD countries report a comparable advantage for girls over boys on some tests of literacy (as summarised below). It is clear from an initial scan of the research and professional literature, however, that this is not an entirely consistent finding. For example, some more recent studies in Australia (see Luke, Freebody \& Land 2000 for a summary of these) indicate that boys' literacy scores are improving relative to those of girls; some assessments in the United Kingdom do not show the same effects; and a large United States national study shows advantages for girls on narrative-based but not exposition-based tests. So it is clear that, in order to develop understandings about boys and literacy that can form the bases of practical action and productive policy, sophisticated analyses of available data are required.

This study aimed to document, interpret and enhance what schools do and what they can do, in concrete and definite ways, to develop boys' literacy. Within a stipulated time-frame the study was to trial a number of specified, manageable classroom interventions.

The study did not attempt to address, in any comprehensive or substantial way, all the possible explanations of the differences between boys and girls on literacy test scores. There are two reasons for this. The first is to do with the need for caution in interpreting test score data (see Luke, Freebody \& Land 2000); the second concerns the pragmatics of teachers' work and the need for educationally actionable interpretations that can lead to cumulative sustainable long-term literacy learning.

In reporting test and assessment results, there is a need to consider the validity of the testing in terms of the experiences of students in the particular systems, syllabuses and classrooms in which their literacy capabilities have been developed. It is arguable that the tasks used in tests have a variable and indeterminable relationship to the tasks that constitute students' various learning experiences. It is difficult to be clear on how directly the performance on tasks in a Statewide literacy test relates to the particular settings that have formed the platform for students' literacy experiences. These experiences are functions of varying school policies, material and human resources and teachers' and school administrators' professional judgments. These issues themselves relate to the nature of the community, cultural and social conditions in which a school operates, and the syllabus materials and curricular guidelines that set the boundaries for that operation.
[S]tudents at the same chronological point in their education are not necessarily at the same point in their progress through the syllabus, nor do individual teachers instantiate the generic syllabus contents with the same emphases, to comparable depths, or even in qualitatively similar ways. (Luke, Freebody \& Land 2000, p. 40)

As well, most tests are restricted in the representational modes they employ. They tend to rely largely on pencil-and-paper and print administration, need to be completed within a specified time, have no practical consequences for the students who complete them (other than 'doing the test'), and pay little attention to how the forms and functions of texts work differently in different knowledge domains and task settings. Knowledge about the pragmatic and critical management of texts in everyday settings is typically beyond the purview of most literacy test settings.

Further, test results are generally taken to be 'snapshots' of literacy performance. Most do not gauge students' developing capabilities in literacy tasks over time. The informativeness of test results relies on the questionable belief that any reliable literacy test offers a reasonably transparent view of a student's ongoing capabilities to participate in literacy events. So how does a teacher or a school use the information gained about a student from a test? Test results may be used to allocate resources or alert parents and teachers to potential difficulties with individual children, but the limitations to their validity and utility suggest caution in interpreting their significance and in relying on them for teaching.

## Pragmatics of teachers' work

The second reason we do not attempt to 'solve' the question of the root causes of differences in literacy scores among boys and girls has to do with our sense of the pragmatics of teachers' work and the kinds of research that can productively inform that work. Theoretical positions that give explanatory prominence to gender differences rely variously on neurological, socio-biological or acculturational accounts, and focus on hypotheses to do with brain lateralisation, activation levels, attention span, relationships with parents in early childhood and other early familybased variables.

This study neither pursues nor makes any empirical claims about these accounts. Nor does it set them aside. As these issues form part of significant discourses that shape current educational and community practice, they need to be treated as relevant to educational practice, and their various inflections need to be documented if we are to understand and critique that practice. Our reports of surveys and interviews conducted with parents, teachers and school administrators (see Chapters 4 and 5) provide ample evidence of the prevalence of various kinds of explanations of the literacy achievements of boys versus girls, and of the direct implications those explanations are taken to have for actual and recommended educational practice.

As we report in Chapter 3, a scan of the extensive research and theoretical literature on this topic shows a number of distinct hypotheses aimed at accounting for the literacy performance difference between boys and girls. Each locates the problem in a
distinct place. The strong forms of these hypotheses can be put as the following propositions:

- There is something intrinsic to the biological or neurological makeup of boys that relates particularly to the learning of literacy in school.
- There is something in the early acculturation of boys that is directly relevant to this learning.
- There is something in the materials used in schooling, in particular those materials relating to reading and writing lessons, that disadvantages boys but not girls.
- There is something particular, definite, and knowable about the particular interests of boys, contrasted to those of girls, that literacy learning in school does not take sufficiently into account.
- There is something in the strategies typically used in early-primary and middle-school literacy lessons that systematically disadvantages boys.
- In a culture such as ours, or in certain subcultures, literacy practices themselves (the activities of reading and writing) are gendered. They are regarded as feminine activities.

Because each of these hypotheses characterises the apparent differences in boys' and girls' literacy performance differently, each has different implications for responding:

- Differences in the literacy performance of boys and girls are a result of the different physical activation levels of boys and girls, with implications for their attention.
- They are a product of different cognitive processes typically employed by girls and boys from their early acculturation.
- They are a product of the general advantage enjoyed by girls in language and communicational proficiency that results from genderbased differences in acculturation in the early years of life in family settings.
- They result from boys' identification with male parents who themselves may read and write less, may read and write more technical and work-related materials, and may read and write less for pleasure.
- They are a result of the 'feminisation' of the primary-level teaching profession, which gives rise to problems for boys in relating and identifying with their teachers.
- They are a function of the combination of boys' relatively lower persistence with tasks in which they are not interested and:
- the 'domesticated' materials used in primary schools to teach reading and writing; and/or
- the emotion- and reflection-based pedagogies used in the primary school years.
- They are a function of the availability of manual rather than communication-based work for males in traditionally male vocational pathways; and
- They are a direct function of the social construction of literacy as a gendered set of practices, attitudes and skills.

Many of these possibilities could not be rigorously addressed within the terms of this study. However, a critical point that is documented in Chapters 4 and 5 is the interrelatedness of these ideas in the understandings of educators and in the powerful accounts they give of their teaching. Further, through its variety of methods and analytic approaches, the study addresses the multiple causality of boys' literacy learning. In a country as economically, linguistically and culturally diverse as Australia, different patterns of causality may be in operation in different sites and at different times during a student's progress through the primary school years. Keeping that in mind, a search for the one cause, or the one 'underlying' factor may result in recommendations that are educationally counterproductive for many boys and girls. It is in that context, then, that we focus on materials, classroom tasks, pedagogy and the social organisation of classroom work, in exploring a variety of approaches.

We restricted our surveys and interviews to practicable classroom-based issues because recommendations concerning, say, the need for the parental re-acculturation of boys, or the need to overcome widespread cultural attitudes can amount to acceptance and reinforcement of whatever hypothetical differences - physiological, psychological, social or otherwise - are deemed to characterise boys versus girls. The focus of the project is fundamentally about what schools can do, even in a relatively short time, and what we can show they can do in a valid and reliable way.

## Design

The project had two major functions that formed the two phases of its organisation:

- Drawing together research, recommendations and theories about boys and literacy from published sources and from the statements of educators and parents of primary-school students (Phase 1);
- Developing and trialling a range of classroom interventions directed to improving boys' literacy learning and evaluating those interventions (Phase 2).


## Phase 1

The aims of the Phase 1 work of the study were to:

- draw together a set of understandings on the issue of boys and literacy learning in the available research literature;
- collect and critically analyse recommendations made to teachers on the issue of boys and literacy learning from the available professional development literature; and to
- collect and document the views of a range of participants - school principals, teachers and parents - on what they have observed about boys' literacy learning and how that might be enhanced in schools and homes.


## Data sources

## Available research and professional development materials

For some time a corpus of research and professional development materials has been accumulating on the general issues of gender and education, boys and education and, more specifically, boys and literacy. Phase 1 included a review of these materials to:

- establish the prevalence and degree of difference between boys' and girls' literacy performance;
- collate and critically analyse the various explanations and hypotheses preferred in this corpus of work; and
- collect the kinds of recommendations offered to schools and teachers on how to enhance boys' literacy learning, in terms of policies, assessments, materials, tasks, and classroom strategies.

The findings from this review (see Chapter 3) formed the basis for the development of survey and interview materials for use in other aspects of Phase 1.

## Educators' and parents' perceptions and practices

Three surveys were conducted of the views of primary-school teachers and parents of primary-school students:

1 An electronically managed survey of primary-school teachers' beliefs about the issue of boys and literacy, including their views of appropriate and effective programs, strategies and classroom organisation (see Appendix 1);
2 A pencil-and-paper survey of the perceptions of parents of primaryschool students of how literacy performance can be enhanced at school and at home (see Appendix 2); and
3 An electronic discussion list where matters relating to the literacy education of boys were canvassed.

The electronically managed teachers' survey, established at the Curriculum Corporation website, could be downloaded and completed as a hard copy. The survey (see Appendix 1) was presented in three sections. The participants submitted responses for each section before moving to the next section:

- Section 1 sought background information on teachers and their schools (their years of teaching experience, the kind of community and socio-economic context in which the school operated, and so on);
- Section 2 contained Likert-scale items, where teachers indicated the degree to which they agreed or disagreed with 16 statements drawn from the research and the theoretical literature concerning boys and literacy; and
- Section 3 asked for descriptions of the backgrounds, characteristics and particular literacy difficulties of boys and girls who struggle with literacy requirements of school; and the literacy programs, teaching and learning strategies, and classroom management strategies that
teachers have found to be successful in improving literacy outcomes for boys and girls.

The web address was advertised during interviews with principals and teachers, in professional journals for teachers (for example, the PETA journal), and in letters to primary school principals in Queensland, New South Wales and Tasmania.

There were 453 responses to this survey (448 responses to Section 1; 414 responses to Section 2; and 313 responses to Section 3). Of the 414 teachers who responded to Section 2, most (371-90\%) taught in schools in Queensland (166), New South Wales (159), or Tasmania (46), with a smaller number from Victoria, South Australia and Western Australia (29); while 14 respondents did not indicate the State in which they taught. The results of this survey are presented in Chapter 4.

The parents of students in year $2 / 3$ and year $6 / 7$ classes of the teachers interviewed during Phase 1 of the project (see Interviews, below) were asked to distribute, collect and post back to the research team a short survey (see Appendix 2) to be completed by parents of the students in their classes. The survey asked parents whether or not they believe that boys experience more difficulty with literacy than do girls, what they do to encourage and assist their children's literacy development, and what they believe that teachers could do to improve literacy outcomes.

Responses were received from parents in 22 of the 24 Phase 1 schools in the study; of these 22 schools, we received responses from one class in four of the participating schools. The total number of responses was 298.

The discussion list was established at the Education Network Australia (EdNA) site. It was advertised at the same time as the electronically managed survey. The discussion list was open to anyone interested in boys' literacy achievement and development. Members of the list were asked to address the following questions that arise directly out of the questions posed in the statement of the study's aims:

- Are boys disadvantaged or underachieving? If so, which boys, and why?
- What factors influence any educational disadvantage of boys in literacy learning and development?
- What practices and strategies are effective in improving literacy outcomes for boys?

Seventy-two individuals subscribed to the list, including the research team (five) and the Advisory Group (eight) for the study.

## Interviews

Face-to-face interviews were conducted during 2001 with two teachers (year 2 and year 6 teachers in New South Wales and Tasmania; year 3 and year 7 in Queensland, but henceforth in this chapter referenced as year 2 and year 6), in each of the 24 schools of Phase 1 of the study. In most cases, a senior member of the school's administration was also interviewed. The 24 primary schools in Queensland, New South Wales and Tasmania included single-sex (boys) schools and schools in which
boys and girls were grouped separately for substantial periods of literacy work time (gender-separated classrooms). Each school was described within a matrix developed to account for: high/low socio-economic status; English-speaking background/first language background other than English/Aboriginal or Torres Strait Islander language; rural and provincial locations/suburban and urban locations.

The school principal and the two teachers at each school were asked to discuss why some of their students were achieving very well while others were doing very poorly in the context of their class group, and to explore the consequences of this. The results of these interviews are presented in Chapter 5.

## Students' performance

Data were collected on the literacy performance of students in the 24 participating schools, including broad-gauge quantitative school- and class-based test data, to allow standard score comparisons to be established across the 24 schools. Other related information on the students was also collected. A range of analyses (see especially Chapters 4 and 7) explore the inter-relationships among these and longterm school performance data.

Data analysis to inform Phase 2 of the study was conducted continuously during Phase 1 of the study, with a view to identifying sets of practices that were seen as helping to improve boys' literacy outcomes.

## Phase 2

Phase 2 focused on developing and trialling classroom interventions, and evaluating and documenting their effectiveness.

## Participants

From the 24 schools and 48 teachers of Phase 1 of the study, 12 schools and 24 teachers (one each at years 2 and 6) were selected to continue participating in Phase 2. The schools were selected to represent a range of educational settings across the three participating States, especially in regard to:

- a range of socio-economic settings;
- schools and communities with varying levels of students whose first language background is not English;
- a mix of inner-suburban, fringe-suburban and rural-provincial schools; and
- mixed-gender classrooms, single-gender schools and classrooms in which boys and girls were separated for some literacy-related activities.


## Training for participants in Phase 2

The training for Phase 2 was aimed at enabling the participating teachers to:

- extend their understandings of links between gender and literacy;
- re/search and reformulate their current programs and practices;
- develop a program of action and a method of monitoring, evaluating and reporting that program of action.

During these training sessions participants were engaged in:

- questioning current public discourses about boys' literacy and boys' education more generally, and exploring practical ways in which research can help provide productive ways of enhancing boys’ literacy learning;
- revisiting assumptions about 'boys' and about 'literacy' that lie behind many of the strategies schools implement or endorse to address boys' underachievement in literacy;
- understanding how the social construction of masculinity can affect boys' participation in literacy classrooms.

This involved participating teachers in addressing questions about strategies identified in Phase 1 research, such as:

- What understandings of, and assumptions about, boys underpin each of these strategies? Are these understandings and assumptions based upon stereotypes? Are they consonant with your professional experience?
- What assumptions about classroom literacy practices are implied by each of these strategies? What understandings of 'literacy' and of 'literacy learning' are assumed?
- Are these strategies inclusive or potentially exclusive and marginalising? Do some of them have the potential to disadvantage girls' literacy learning in the classroom? Or the literacy learning of particular ethnic or cultural groups of boys? Will they prepare boys well for literacy learning in the secondary school and in postschooling contexts?

In small groups, participating teachers engaged in activities in which they were asked to consider assumptions, views and theories about literacy, literacy learning and boys that underlie some of the strategies identified in Phase 1 schools as helping to improve boys' literacy achievement. For example:

1 For literacy work, teachers need to group students according to the same sex ?

- Boys are distracted by girls? They show-off or play the fool?
- Boys are embarrassed to express themselves in front of girls?

They do not become serious participants in the class activities?

- Boys and girls need different pedagogies for effective literacy learning? For example, boys need more structured, explicit teaching? Boys need competition? Boys need activity, and a rapid change of activities?
2 Classroom literacy work often draws upon personal experience and reflection?
- Boys are embarrassed to display emotion or sensitivity in public?

3 Classroom literacy work is often too narrowly focused on reading and writing activities?

- Boys enjoy talking and acting?
- Boys are performers and love the limelight?
- Boys want to be active' not 'passive' learners?

4 Classroom literacy activities draw too strongly upon 'fiction' and 'creative' writing and reading activities?
5 Boys don't like writing, or won't write, because of classroom writing topics?
6 Boys will enjoy or engage in writing activities that are functional and seen to be relevant?
7 Boys do not value imaginative or personally reflective writing tasks because they regard such activities as 'feminine'?
8 There is a need to develop a whole-school focus on boys as readers and writers?

- Literacy achievement will improve if students read more extensively?
- Boys need to be enticed into libraries? Boys are not 'readers'?
- Libraries are regarded as places for girls and women?

9 There is a need for the presence of adult men in literacy classrooms?

- Students will become readers and writers if they see the functional use of literacy in the world beyond the school?
- Boys need positive role-models of men as readers; they consider that reading is for girls and that real men don't read?


## Classroom interventions

Teachers' planning of school-based work was done in consultation with the research team. In some cases, teachers refined their current strategies and programs in the light of issues raised and discussed in the earlier sessions. In other cases, they developed new projects for improving boys' literacy achievement that were better suited to their demographic and community needs.

One teacher dropped out during the intervention period and was replaced with another from the same school.

The research team developed a checklist for teachers to use in the preparation and evaluation of their project, and three proformas (Progress report, Final report, and reports on student performance using the four-roles model discussed in Chapter 3). The team also arranged for regular contact to occur between the teachers and the research team. Final reports were received from all teachers. Progress reports were received from all but two teachers (one of whom was the replacement teacher). At the end of the intervention period (ranging from 10 to 16 weeks depending on the start dates of the teachers), interviews were conducted with all teachers and most principals.

The classroom interventions are described in Chapter 6.

## Evaluation

Each intervention was evaluated in a number of ways. Prior to the commencement of the intervention, teachers were asked to nominate the numbers of students in their classrooms who were having substantial difficulties (those that would impede their progression as effective learners in the school years ahead) in the terms of the fourroles model:

- Their management of the basic codes of reading and writing;
- Their capacities to understand the meaning systems at work as they read and wrote texts for school;
- Their abilities to use texts across a range of social purposes, including an understanding of the relationships between the forms and functions of different text-types and genres; and
- Their capacity to think critically in the analysis of how texts build up their meanings, and the consequences of different choices that authors make in the construction of texts.

Teachers also provided ongoing reports of their progress during the intervention and an interview report at its conclusion. (Note that some final reports were presented in interview format and some via written survey, and that there were some minor changes made in these questions across occasions, mainly relating to the amount of information and detail requested.) The teachers were asked questions such as:

1 Before you became involved in our project did you consider gender to be an important aspect of literacy education? If so, what were your general ideas at that time?
2 Describe the idea you developed to implement in your classroom - its conceptual rationale, and why you thought it would be effective for the particular students you teach.
3 Were there any difficulties you encountered in implementing your project?
4 How has your project changed the way you approach your teaching? You may wish to mention materials used in class, the organisation of work in the class, and any particular strategies you have used.
5 Can you list the main outcomes of your project that you have observed so far, including any improved student learning outcomes?
6 If you were to begin your project again, what aspects of it would you retain or intensify?
7 If you were to begin your project again, what aspects of it would you change or delete?
8 Can you describe how one or two of the boys in your class have benefited from your project so far?
9 If you were to make recommendations to your colleagues at your school about how they could improve the literacy learning and teaching of the boys in their classes, what specific things would you recommend?
10 If you were to make recommendations to your district office or State department of education about the literacy education of boys, what one or two specific things would you recommend? Again, you may
wish to mention materials used in class, the organisation of work in the class, and any particular strategies you have used, but you may also wish to consider more general policy issues about, say, the organisation of schools, assessment and so on.
11 Has your involvement in the project so far changed the ways in which you think about literacy?
12 Has your involvement in the project so far changed the ways in which you think about the education of boys?

## 3

## LITERACY, GENDER AND BOYS' EDUCATION:

## THE BACKGROUND OF THEORY AND RESEARCH

Any informed consideration of literacy learning and the performance of boys needs to take place in terms of current understandings of the nature, cultural context and consequences of literacy for societies, communities and individuals. This chapter sets out our review of and our position on the three elements that constitute the framework and context for this study. First, we discuss the significance and nature of literacy, including how it is currently defined, researched and acted upon in the contemporary Australian setting. We then present a review of issues in gender and education, elaborating on previous research and theory and describing our own position. Finally, we review the relevant research and theory specifically on boy's literacy and performance.

## Literacy

## The significance of literacy

Literacy is significant for societies and individuals. Most theorists and researchers stress the social effects of literacy, variously crediting it with levering up economies, building social cohesion, enabling democracy, and establishing and maintaining levels of civic well-being. It is also argued that literacy provides individuals with access to logical thought (Olson 1999), scientific learning, employability and a sense of social belonging.

While some of these aspirations for literacy have been tempered by studies of emerging literacy in various societies (for example, Fuller, Edwards \& Gorman 1987), even to the point where some of them have been labelled 'literacy myths' (see Graff 2001), it is clear that the spread of literacy activities constitutes an 'emergent property' for a society; that is, literacy does not just operate 'on top of' a culture, but rather changes the nature of that culture, making different kinds of activities and relationships possible. Similarly, literacy can be seen as an emergent property for an individual, changing how that individual can relate to others, function in a society and, in effect, change aspects of that person's sense of identity. For instance, there is now a body of research showing the implications of inadequate communicational capabilities, especially those associated with literacy. These capabilities have been shown to relate to short- and long-term employment; inadequate capabilities have been directly associated with the acceleration of intergenerational exclusion and alienation (Brine 2001; Bynner \& Parsons 2001). Regardless of the particular nature of the broader cultural consequences of literacy learning, literacy is an important aspect of the avenues through which people relate to and function in their surroundings.

This means that debates and policy developments in literacy education need to be considered in terms of the social, cultural and economic conditions prevailing in a particular society at a particular time. For instance, current Australian concerns over the economic consequences of literacy relate in part to recent changes in the employment environment. Briefly, all employment sectors in Australia (professional, manufacturing, construction, trades, etc) showed flat or dropping employment share across the 1980s and 1990s, except for the service sectors, which showed growth of about 9 per cent from 1978 to 1992. The growth rates in employment share from 1990 to 2000 give a clear view of the significance of information management, of which literacy capabilities form a crucial part: the professional management sector has 45 per cent of the growth in employment; the semi-professional sector has 25 per cent; and the clerical and sales sector, (which includes considerable growth in casual employment rates), 30 per cent. These can be compared to growth in the labouring/unskilled sector of 4 per cent, and of zero growth in the traditional trades sector (the sources for these measures are Stewart \& Berry 1999 and the Australian Bureau of Statistics 2001).

These developments have implications for the significance of literacy education in contemporary Australia, and for the relationship of school literacy learning to job and training pathways. The current Australian employment and training scene has changed in ways that are significant for boys. Of particular note is the stagnancy of employment sectors traditionally associated with the employment of males with below-average school performance. More broadly, there is a substantial movement in Australian employment growth towards sectors handling information exchange and the management of increasingly sophisticated communication capabilities.

The changes described above have coincided with significant changes in income distribution in Australia over this 20-year period, with distribution inequality measures ranging from 0.30 in the late 1980s to 0.45 in 2000 (with OECD average estimates being 0.28 for the late 1980s and 0.35 for 2000). This increase in the inequality of income distribution relates to longer-term changes in employment patterns. Young Australians leaving school are now significantly more likely to change jobs and to move from (increasingly casual) jobs to training, sometimes back and forth, for longer periods of their lives. These economic trends, regardless of their other implications, place increasing pressure on young Australians to manage diverse and rapidly changing communicational demands. Taken together, they indicate that flexible, adaptable real-world literacy and learning capabilities are more important now than they might have been for previous generations; the employment sector changes suggest that this increased importance applies with even more force to boys who have difficulties at school.

Further, as Freebody and Muspratt (2002) show, many young Australians already operate in a complex communicational environment, reflecting the rapidly evolving, cross-modal demands of the workplaces and educational and training sites that await their departure from school (Mikulecky \& Kirkley 1998; Thomas, Sammons, Mortimore \& Smees 1997). This environment is radically different from the 'native' communicational patterns of most educators. There is, therefore, a need to monitor the effectiveness of understandings of relevant literacy activities and the extent to which those understandings are acted on productively. Schools are now under mounting pressure to extend and change students' abilities to combine multimodal
literacy activities, using a variety of technologies, in ways that change the structures of how they learn, represent and communicate their new knowledge (Tierney 1996) and that move beyond the traditional literacy purview of primary education (Merchant 2001; Snyder 2001).

Such changes also reflect the changing nature of work and learning sites. Oman (1999), head of the Research Program at the Development Centre of the OECD, has recently pointed to the ways in which literacy capabilities are deeply implicated in current moves away from the traditional organisational features of work sites. Effective workplaces, including educational institutions and systems, he argues, are increasingly characterised by:

- the integration of thinking and performance;
- organisation based on principles of networking rather than hierarchy;
- broader definition of job responsibilities, focusing on collaboration and teamwork; and
- an emphasis on the continuous improvement and innovation of practice as a fundamental day-to-day imperative.

He characterises these successful organisations as 'flexible', and comments on how they become that way:

> They do so, above all, by more successfully exploiting the human intelligence, creativity, flexibility, and knowledge based on experience of their workers. Compared to Taylorist organizations, they are learning organizations, which often show much greater sensitivity to change, and the potential for change, on both the demand and the supply side of the markets in which they operate. (p. 51)

There is a direct connection between these systemic changes in work, education and training - and the abilities of collectives and individuals to manage effectively a variety of communication activities, the most prevalent of which take the form of literate communications.

These issues matter in any consideration of literacy education as it pertains to boys. The nature of the employment and training options available to young people, the role of their literacy capabilities in the expansion of those options and, most significantly, measures to enhance literacy learning in boys, all bear on what can be achieved through educational efforts. Many of the structural implications of these considerations have been explored elsewhere (most explicitly in Luke, Freebody \& Land 2000, on which much of the following discussion draws), but the required changes in pedagogy call for policy and practice that takes into account student diversity, the economic and cultural pathways of young people, and teachers' preand in-service training in literacy education.

## Varying definitions of literacy

Much has been written about literacy. The term has offered educators and researchers many orders of interest. There is also much debate about what literacy is, its
consequences for individuals, communities and societies, and how best it can be taught. A number of issues that have been the objects of these perennial debates have particular relevance to the issue of boys' literacy performance, for example, the evidence for one 'basic' competency or set of sub-competencies underlying literacy, and whether or not literacy activities are best regarded as sets of specific activities, practices, and dispositions that vary substantially in their make-up from site to site, community to community, and culture to culture.

These issues have theoretical, empirical, professional and policy implications that have engaged researchers, teachers, curriculum developers and educational administrators for many years. The significance of definitional issues in literacy education reaches beyond academic discussion to the classroom, to the educational publishing house and to departmental head offices. Differing definitions of literacy have had substantial effects on the nature and effectiveness of educators' attempts to enhance literacy performance in schools, workplaces and communities (Freebody, Cumming \& Falk 1993). So definitions of literacy and literacy learning need to form the centrepiece of an educational intervention.

Definitions of literacy are, to some significant extent, context-driven in that they are tailored to particular features of the educational, institutional and cultural context in which they need to be put to work. Furthermore, while definitions of literacy and numeracy practices set limits to the imagination of educators and policy makers, they do not guarantee particular forms of educational or cultural intervention. Here is the definition UNESCO used in the ill-fated Experimental World Literacy Program (EWLP), cited in Oxenham (1980):

A person is literate when he (sic) has acquired the essential knowledge and skills which enable him to engage in all those activities in which literacy is required for effective functioning in his group and community, and whose attainments in reading, writing and arithmetic make it possible for him to continue to use these skills towards his own and the community's development. (p. 87)

Baker and Street (1991) made the following comment on the outcomes of this definition:

In practice this apparently relativistic and functional definition of literacy has been largely associated with narrowly defined programmes with work-related objectives, concerned with improvements in labour productivity ... Ideologically specific objectives had been disguised behind a supposedly neutral model of literacy as simply technical skills. (p. 2)

So definitions can be ignored or variously acted out in the implementation of programs apparently derived from them. A final comment on the fate of UNESCO's definition and the EWLP is given by the former Director of the Literacy Secretariat of UNESCO (in Limage 1993):

> While UNESCO had promoted what it called the 'mass literacy campaign' approach in its early years, it turned to a more targeted strategy, called 'functional literacy' programmes in the mid-1960s and early 1970s. When learners in these latter programmes discovered that the only 'functionality' involved was to make them better workers, the majority of these experiments failed ... No single solution can be applied across countries. Programmes and strategies must emanate from perceived needs within individuals and their communities. (p. 23)

But definitions can become culturally self-fulfilling. A particular version of what counts as literacy may itself come to shape how teachers are trained, how students at school are trained, how industry trainers learn and pass on what counts, how educational researchers operationalise literacy in their studies and how, finally, all groups come to define the activities called literacy. That is, selective traditions of activities can come to count as literacy-for-that-culture, while other tasks presented in daily public and private lives come to be allocated elsewhere in the institution of schooling, or outside it, or simply fail to appear in the public and private activities of that culture. Thus they remain invisible, implicit or not valued. It is an empirical task to explore the degrees of commonality in 'what counts' from one site, community, or culture to another.

Recently, there have been strong arguments to the effect that literacy educators have overstated the case for a single psychological 'commodity' called literacy. There are many reasons for the movement away from unidimensional definitions of literacy or numeracy, beginning in the late 1970s and early 1980s, with reports of the research of Scribner and Cole (1981), among others, on cross-cultural literacy activities (Graff 1987, p. 2).

Literacy practices have been topics of a great deal of debate, much of it addressing very fundamental issues such as the nature of the intellectual and social learning presented by literacy practices, and the best ways of teaching and learning about these. In particular, literacy education has, for over fifty years, been an arena of persistent and often hostile differences of opinion. Upon completion of her massive review of the research literature of reading acquisition (a review to which we will return in a later section), Adams (1990) began her summary of that review in this way:

The question of how best to teach reading may be the most politicised topic in the field of education. (p.1)

It is likely that this comment applies even more forcefully to literacy education now than it did when Adams compiled her report.

## Traditions in the study and practice of literacy education

It is possible to classify schools of thought about literacy and literacy education into three large, generic categories (adapted from Gilbert 1989b, and Christie et al 1991):

- the skills approach, emphasising the perceptual procedures of decoding (for reading) and encoding (for writing);
- the growth and heritage approach, emphasising both the private, personal, and individual ways in which people use and grow through reading and writing, and the significance of reading and writing in offering access to the valued literary heritage of a culture;
- the critical-cultural approach, emphasising the variability of everyday literacy practices from culture to culture and site to site, and the analytic, critical nature of using reading and writing in everyday social experience.

These approaches are briefly discussed here principally because some understanding of the available theoretical positions current in literacy education is necessary in order to have some terms in which to interpret the theoretical or philosophical reactions of the various participants in the study to questions about boys and literacy.

An important preface to this discussion is that these approaches are made up not just of different propositions about the nature of literacy or how best to assess it. They are also associated with different ways of knowing about social and educational practice, and they call on different kinds of support from formal experimental or observational research, from linguistics, from ethnography, or from the everyday experiences of educational practitioners.

It is also important to note that in the report on the place of literacy education in teacher education programs in Australia (Christie et al 1991, Chapter 2), which surveyed the views of many teacher educators involved in literacy education courses, views only rarely amounted to pure forms of the approaches outlined here. Teacher educators generally held combinations of ideas, many explicitly characterising themselves as 'eclectic' or 'pragmatic'. As Christie et al pointed out, this combination of perspectives is predictable given the rapidly changing circumstances of literacy education in Australia since 1945 and the visibility and complexity of the contests between differing approaches.

## Skills approach

Drawing largely on psychological traditions of theory and research design, a longstanding and growing body of work has developed in which reading and writing are thought of as calling on the orchestration of perceptual or, in some versions, cognitive skills (for early examples see Gough 1972 and LaBerge \& Samuels 1974). There is a focus on the extent to which decoding and encoding skill and fluency predict early access to literacy practices, and the importance of the special problems that are presented by the generally alphabetic nature of the English script system. Such a system, it has been argued (for example, Byrne 1999), demands awareness of the phonemes of the language, in contrast to a syllabic language which makes no such demands for its code to be cracked. Since neither this awareness nor the information processes that come into play in its application can be thought of as particularly 'natural' or even 'easy', then explicit instruction seems required for those learners who encounter literacy-saturated societies.

Approaches to literacy that emphasise skills-based learning and teaching have been consistently well-supported by several extensive reviews of research programs exploring the causes of difficulties in literacy acquisition. For example, some 35 years ago, Chall (1967) reviewed the available research literature on skills-emphasis versus meaning-emphasis in early-reading programs and concluded that the consistent positive outcomes evident in the research favoured a skills emphasis, even though she conceded that teachers often had mixed orientations rather than pure or strong forms of either. Studies have been summarised by, for example, Stanovich (1986; 1989), Adams (1990) and Snow, Burns and Griffin (1998), with little challenge issued to Chall's early conclusions.

In summary, there is much research on the acquisition of English literacy that leads strongly to the conclusion that a fluent knowledge of the nature and content of the relationship between phonemes and graphemes is a necessary component of successful early learning. The case has also been overstated in the claim that such knowledge is not only necessary but also sufficient for literacy acquisition. Juel (1988), for instance, has argued for a 'simple' model of reading: that successful reading is nothing more and nothing less than successful decoding and ordinary speech-like understanding. Skills approaches most explicitly in the 'simple model', have typically given no attention to the differences in communicator relationships between speakers and hearers as opposed to readers and writers; the different syntactic and semantic patterns that characterise spoken versus written language use; and the different ways of representing everyday and specialised knowledge. These points are expanded in later sections, but it has been partly in reaction to these explicit or implicit overstatements that some literacy educators have explored other aspects of becoming 'literate' in contemporary society and developed other positions and instructional approaches.

## Growth and heritage approach

Views of literacy that are based on notions of self-described 'child-centred' orientations to learning, have had a strong impact on language and literacy learning and teaching. Predominant among these views over the last 30 years are those described as 'growth', 'psycholinguistic', 'whole language', 'language experience', and 'process' approaches, early expressions of which are Goodman (1967) and Dixon (1967).

These views give prominence to the idea of the child-learner as 'growing' and the teacher as facilitating that growth through the orchestration of language experiences, to the processes whereby literacy attainment occurs, and to the social environment in which it occurs, rather than to text or product outcomes. With respect to reading and writing acquisition, the growth approach stresses that English script, with 26 letters to account for 44 sounds (in public Australian), is not purely alphabetic; and that this level of irregularity is too great to warrant basing a curriculum on the teaching and learning of the phoneme-grapheme relationship.

Goodman (1967), for example, has posited three code systems involved in reading and writing: the grapho-phonic code, the syntactic code, and the semantic code. It is this latter code, most growth exponents argue, that should be the focus of literacy acquisition. In more current inflections of the growth approach to reading, Goodman
(1988), for example, stresses the relationship between 'invention' and 'convention' in the reading process, and the need for the teacher to set up natural conditions in which a variety of texts are read and written.

Similarly, with respect to writing education, a view of written language as secondary to oral language in immediacy and 'authenticity' developed among growth educators, such as those who worked on the British Schools Council Writing Project (see, for example, Britton et al 1975). They stressed the importance of 'expressiveness', most directly attained in spoken language, and the consequent importance of expressive writing. This form was said to be close to speech and thus afforded the best way for the individual to explore and test new ideas, and also the most authentic form of the writer's true voice.

In these respects the growth approach and the heritage approach are related (see Dixon 1967 and Gilbert 1989b). It is arguable that the growth approach to literacy education has had most influence in the primary years of education, whereas the heritage approach has shaped the secondary and tertiary education studies of English (Christie 1993 extends this point). The idea that the study of reading and writing in the school subject English has as its consummate goal an appreciation of the great 'thoughts and feelings' of the culture relates directly to the notion that the acquisition of literacy practices has primarily to do with personal expression - with 'pro-speech, pro-expressionist, pro-personal' language activities (Gilbert 1989, p. 10).

## Critical-cultural approach

In the critical-cultural approach, literacy educators draw on three theoretical resources: critical social theories (Gee 1999), textual and discourse studies (Fairclough 1995; Martin 1992) and ethnographic research methods as applied in anthropology and other cross-cultural studies (Barton \& Hamilton 2000; Street 1995). Attention is focused on the ways in which institutions value certain literacy and numeracy traditions over others, and on practices that add to or reinforce the forms of order required by society's institutions, in particular, the school and the workplace. In these ways certain powerful literacy practices become institutionalised and others become marginalised or devalued (Gee 1991).

The basic position developed within these schools of critical linguistics in their approach to literacy education has been summarised by Christie et al (1991) in the following terms:

It is our position that critical and informed participation in Australian society requires that students be given equitable access to:

1 wide-ranging competencies to deal with diverse genres, texts, and discourses in various social contexts occupational, academic and community - and in various media, including print, electronic, and visual;
2 the capacity to use text as a means for learning and decision making in periods of education across the different phases of living; and

3 the capacity to use text as a means to appraise their positions in changing economic, occupational and social conditions. (p. 2)

A further feature of textual and discourse studies and their impact on literacy education is their concentration of attention on the functions of texts in the cultural and situational contexts in which they are used. The basic premise of this approach is that there are certain textual forms that are effective, efficient and thus powerful means of action in any given society at any given time and that, further, the responsibility of education is, at least in part, to educate children into a secure control over these powerful public forms of acting through literacy practices. Such approaches have also concentrated attention on the forms of reading and writing that occur in classroom contexts (see, especially, Baker 1991; Freebody \& Gilbert 1999; Gilbert 1989b). From these different perspectives critical-cultural studies offer a variety of critiques of the growth approach and may be seen as direct reactions to the limitations of progressivist educational models (see Freebody in press):

- Linguists have generally taken the text, as a structured object, to be the prime unit of focus of critical literacy.
- Sociologists have generally focused on how various uses of language signal the effects of social formations such as race, gender and class, and how these formations in turn give shape to how people read, write, look, talk and listen.
- Anthropologists have taken cultural practices, and the ways that different literate representations implicated variously afford these, as the most productive analytic focus.

The following approaches to critical literacy relate to the particular theoretical premises and procedures that define each of the above disciplines:

- Critical literacy is about giving all individuals, groups and communities access to the powerful texts in a society through enhancing their knowledge of how these texts are constructed and how they can be deconstructed.
- Critical literacy is about transforming the socio-political processes that make some texts more powerful than others, by mainstreaming and giving privilege to minority and marginalised texts, for example, indigenous/native texts and feminised texts.
- Critical literacy is about transforming education, the major context in which members of a society learn not only what texts and textual practices are valued and dominant, leading to practical understandings of how people are educated to become both the objects and subjects (both the topics of and the readers and writers) of a limited set of ways of representing reality.

Educators working from a critical-cultural perspective have pointed to the ambiguous effects, both personal and cultural, of literacy acquisition. Certain forms of literacy education have the power to enhance a community's well-being for diverse cultures, while other forms have the power to homogenise cultures, and to emphasise, punctuate, and even justify marginality for some groups (for example, Comber,

Badger, Barnett \& Nixon 2001). As there is no longer any strictly monolingual society, there is a need to review continually how well literacy education is directed to the well-being of all groups within the society.

In summary the critical-cultural approach draws attention to the historical, linguistic and cultural products of literacy rather than emphasising the cognitive or social processes of teaching and learning (Brandt 1999; Luke \& Freebody 1997). The critical-cultural view simultaneously emphasises the nature of what is written, its diversity, and the course of its action in a particular cultural and political milieu. This emphasis upon the actual products of reading and writing and their role in cultural activity has become associated with so-called 'explicit' teaching model. As with the skills approach described above, critical-cultural orientations, particularly those associated with critical linguistics and discourse studies, tend to favour the direct transmission of powerful forms of text use. They reject a progressive-liberalism that focuses upon personal expression as the prime function of educational activity. Most strongly related to the critical approach is the view of literacy practices as courses of cultural, social and political action (Freire \& Macedo 1987). This approach draws attention to the fact that learning about literacy always takes place in a particular social, cultural and ideological context, for a particular purpose, and that it is these socio-cultural conditions that determine the nature and efficacy of educational interventions.

## The framework for this study A practice-oriented approach to literacy education

The approaches outlined above, representing relatively 'pure' orientations to literacy education, can be drawn together in various ways. The model used in this study does not reject the emphases of these specific approaches, but rather takes it that the 'old basic' skills, meaning-making in purposeful text use and production, and the critical analysis of textual messages are all capabilities of a person who can function well in a literate society. The approach adopted here also moves beyond a view of literacy based on print technologies, to literate communications that involve multi-modal and multi-technological activity.

A definition of literacy, for example, as basic reading skills, as phonemic awareness, as grammatical mastery or as correct spelling, cannot lead to the programs that new times demand. These components are important, but they do not say enough. They are essentially silent on what students might need to write, how, to what ends, in which media, using which kinds of technologies.

Our approach to literacy in this study attempts to take balanced and realistic consideration of the communicative tasks that learners face. To become functional and independent members of literacy-saturated information societies, students must master a variety of forms of communication (adapted from Luke, Freebody \& Land 2000):

- the systems of spoken language, including the common public language of a society and any community languages spoken in their local sites;
- the systems of alphabetic writing and print culture, including the traditional 'basics' of print reading and writing, handwriting and
spelling in the common public written language (in our case, English), and those other codes that are used in their local community sites, such as braille and sign language; and
- the multimediated, blended systems of linguistic and non-linguistic sounds, and visual representations of digital and electronic media, online and on-screen sources of information that mix print symbols with visual, audio and other forms of expression (see Cazden et al 1996).

As young people progress through community and school life, and contend with the various institutions of higher education, civic and public culture, work and mass media, they need to master a broad array of texts, designs and messages (Unsworth 2001). The flexible and sustainable mastery of literacy entails the capacity to expand, integrate and exchange these capabilities for others across the life span.

Several Australian States (for example, New South Wales Department of Education and Training 1997) have adopted or adapted a model called the 'four resources framework' (Freebody \& Luke 1990; Luke \& Freebody 1998; Freebody \& Luke in press) to describe and structure their literacy planning and professional development. This framework has been used by schools to plan their literacy programs, and by teachers and researchers to describe engagement with the new technologies. This framework is based on four sets of practices in which students develop capabilities within four 'roles':

- Code breaker: The practices required to 'crack' the codes and systems of written and spoken language and visual images.
- Meaning maker: The practices required to build and construct cultural meanings from texts.
- Text user: The practices required to use texts effectively in everyday, face-to-face situations.
- Text analyst: The practices required to analyse, critique and secondguess texts.

All four sets of practices need to be developed across the range of social situations, genres or text types required in the curriculum and in everyday life, so that learners can engage effectively in listening, speaking, reading, viewing and writing activities in an educational or community setting.

We arrive at a key proposition concerning the nature of literacy (adapted from Barton \& Hamilton 2000): that literacy is productively understood as an open-textured category of socio-cultural practice. That is, other than the involvement of printed, electronic and iconic-visual representations, literacy practices cannot be strictly predefined in terms of criterial and associated features, precisely because the range of socio-cultural practices in which these representations play some part cannot be prespecified. This orientation allows us to incorporate information derived from testscores into a broader and more practice-based consideration of literacy, as it is conducted in a range of educationally important sites, with particular technologies, and for particular practical social and individual purposes.

## Gender and schooling

Several decades of work have produced a sizeable body of research material documenting both the ways that schooling experiences impact differently upon boys and girls, and the ways in which 'schooling' is itself a gendered endeavour, contributing towards the construction and reinforcement of gendered ways of 'being'. Both of these issues are worth revisiting briefly in this second section of the chapter, as a background for understanding boys' literacy achievement. Both indicate how literacy classrooms, and literacy performance, are situated within a larger school context of gendered participation and performance, and gendered social practices.

## Gendered differences in school participation and performance

Educational participation, performance and outcomes are demonstrably influenced by gender, although recent reports indicate the complexity of these data. While clear differences can be identified between boys and girls, these differences do not always translate into disadvantage in straightforward ways. In general terms, however, the literature indicates several key areas to consider in terms of the different effects of schooling on boys' and girls' lives.

## Retention

Girls stay at school longer than do boys. Approximately 78.5 per cent of girls complete year 12, compared with 66.4 per cent of boys (Collins, Kenway \& McLeod 2000, p. 2). Boys are far more likely to form the cohorts of 'early school leavers', and far more likely to look for job opportunities at the end of year 10. However other factors are significant here. There is strong evidence that particular groups of boys notably working-class boys, boys in rural and remote locations, and Indigenous boys - are far more at risk of dropping out of school than are boys from professional families. (Lamb 1996; Ainley 1998). Ainley (1998, p. 64) notes that the decline in school completion has been uneven across school systems and social groups: that it has impacted more upon males from low socio-economic backgrounds than other groups, and more upon boys from government high schools - particularly boys who have had little earlier success at school - and upon boys from 'unskilled' family backgrounds. While 88.6 per cent of boys from 'professional' backgrounds could expect to complete year 12, only 59.2 per cent of boys from 'unskilled' backgrounds could expect to do so. While percentages for girls were similarly skewed ( 94.9 per cent and 68.7 per cent), boys' rates of school completion are worse than girls.

## Subject choice

In the senior secondary school, boys are more likely than are girls to cluster around the higher-level mathematics and science subjects, and the information technology subjects, and to avoid literacy-related subjects (Teese et al 1995; Lamb \& Ball 1999). This gendered division inevitably privileges the mathematics, sciences and technology areas in boys' eyes, and devalues literacy-based subjects. It tends to narrow boys' curricular options by coercing them into curriculum decisions and choices that are made more on social expectation than on personal ability and competence. It also establishes an early link for boys between literacy and
'relevance'. For example, can literacy be particularly relevant and important if it is not required and important in the prestigious domains of the senior school?

## Performance

Literacy performance is considered in the following section of this chapter; but, in general, girls tend to outperform boys on many school measures, although as we have indicated earlier, data are not clear-cut. While boys and girls tend to perform relatively evenly at the top of the performance range, boys are more likely to spread out across the performance range and to cluster more at the bottom, while girls are more likely to cluster closer to the mean (Collins, Kenway \& McLeod 2000). On most measures, girls perform better, and are more engaged with school, than are boys.

## Post-school destinations

Girls are more likely to enter higher education straight from school than are boys, and boys are more likely to proceed to TAFE than are girls. These figures are clearly linked with retention figures (more boys leave school early than do girls) and to performance (because girls perform better at school, they are more likely than are boys to gain university entrance to their preferred course). However there are also strongly gendered patterns in students' post-school decision-making, with many boys preferring a work-related location to a higher education option (Alloway \& Gilbert in press).

The difficulty with much of this data on participation and performance, as studies by Collins, Kenway and McLeod (2000), Teese et al (1995) and Lamb (1996) make clear, is that gender is not the only factor at work here. Collins, Kenway and McLeod conclude that socio-economic status makes more difference to educational participation and performance than does gender, and that particular groups of boys (and girls) are the ones most at risk of being disadvantaged in school participation and success. While it is important to recognise the impact of gender, particularly in terms of expectations students may have about appropriate futures and appropriate destinations, it is also important to acknowledge that there is a complex interplay of factors making choices for some students infinitely more difficult than for others. Factors of ethnicity, rurality and poverty compound the picture of school participation and performance. For some groups of boys - and for some groups of girls - choices and decisions are highly restricted.

## The gendered practices of schooling

## The school as a gendered institution

Schools, like all institutions, are thoroughly gendered in their organisation and practice. By focusing on the culture, activities and interactions of children and adolescents, there is sometimes a danger of seeing the school itself as some neutral background in which students construct gender among themselves. However the school as an institution, with its historically reproduced rules, routines, expectations, relationships and rewards, and its deployment of artifacts, resources and space, actively shapes what happens within it, for all its inhabitants. Gender - particularly masculinity - is pervasively and powerfully implicated in this shaping (Angus 1993).

The organisational structure and symbolism of schools, the school management practices which constitute it, the part teachers play in sustaining gender relationships, and the role of the curriculum in reinforcing gender stereotypes, are important issues to consider in this 'shaping' (see Gilbert \& Gilbert 1998).

Researchers have frequently documented, for example, the competitive, sporting, point-scoring version of masculinity which dominates school management (see Davies 1992; Mac An Ghaill 1994). Mac An Ghaill labelled teachers in his study the 'new entrepreneurs', and shows how the values of 'rationalism, possessive individualism and instrumentalism' dominate a school, producing a sexist division of administrative tasks and status hierarachy, and a valuing of rationalist tasks like testing over emotional ones like counselling.

This can often be noticed in other staff relationships which also promote particular forms of masculinity in schools. A range of personal and professional relations among staff are involved in this process, as when male and female teachers distribute such tasks as discipline or organising sports in stereotyped ways. Parental involvement is also often complicit in this. Mothers, for example, are likely to be more involved in their children's schooling than are fathers, through such activities as voluntary assistance at canteens or attendance at parent nights (Lareau 1992). Fathers may be more involved in more public or higher-status activities like parents' organisations, working bees or fund-raising.

The most well-documented forms of gendered relations in the institution of schooling are the relations between staff and students. Since the earliest feminist research on teachers' interactions with children, there has been a constant flow of evidence of this. From the first years of school, teachers distinguish boys and girls in their reference to children (see Thorne 1993). For instance, they use labels of 'big girl' and 'big boy' as terms to praise or admonish children, producing a clear image that to be mature is to be mature in a particularly gendered way. It is no surprise that children themselves then claim these labels as identities to distinguish themselves from babies. In Thorne's study, these particular terms ceased to be used by teachers by fourth grade, but were replaced by terms like 'ladies and gentlemen', continuing the gender distinction as a central element of student identities.

In her review of research on gendered interactions in early childhood education, Alloway (1995) reports an impressive variety of ways in which teachers' interactions with children conform to sexist stereotypes. In these studies, teachers interacted more with boys than girls when the children were engaged in stereotypically masculine activities such as block construction and climbing, while they gave more attention to girls in such activities as dramatic play. The kinds of questions teachers ask, their responses to children's answers, their practices of rewards for behaviour, and their perceptions of student ability were influenced by assumptions about gender differences. This was also Walkerdine's conclusion (1989), who showed that girls who performed well were more likely to be seen by teachers as working hard, whereas boys' high achievement was described in terms of their natural wit and brilliance. Boys at school also learn what it is to be 'a man' from the behaviour of many of their male teachers. In a recent Australian study, boys describe how male teachers commented on the looks of girls passing outside the classroom ('I'd buy that for a dollar!'), and how male teachers see being 'one of the boys' a valuable asset in
controlling boys (Kenway, Willis, Blackmore \& Rennie 1997). Similarly, in Mac An Ghaill's study (1994), teachers ridiculed boys by saying they were acting like girls.

Beynon's study (1989) of a boys' school showed how physically coercive discipline methods such as shaking, pushing and hitting were part of what it meant to be a good teacher in the eyes of the principal and staff. Askew and Ross (1988) report that many women teachers feel the pressure to conform to this authoritarian teaching style, and that boys push them to 'teach like a man'.

In many important ways, schools and teaching are imbued with particular versions of masculinity and femininity which become part of what students engage with, when they engage with formal schooling. Within its institutional construction and the relationships teachers develop with students, constructions of gender are constantly on display and offering themselves as ways to 'do' masculinity and femininity.

## Masculinity and the curriculum

Within the school, research has also documented how distinctively different ways of 'knowing' become associated with masculinity and femininity so that the curriculum becomes 'gendered'. In simple terms, this often comes to mean that masculinity becomes identified with mathematics, science and technology, and femininity with humanities, the arts and the social sciences. In his review of the gendered polarisation of humanities and maths/science subjects, Martino (1995a) argues that this division derives from the history of gender divisions in the workforce. However the division also points to the gendered nature of the common-sense distinction between the public arena as a predominantly masculine site, and the private domain of family and personal relationships as a feminine site.

Divisions like these have given rise to claims that girls, because of their intuition, emotion and expressivity, become naturally associated with the humanities, while mathematics and science attract boys because of the kind of rationality involved in these subjects. Such gendered perceptions of the curriculum have been particularly unfortunate for both boys and girls, as is well-documented in studies such as Collins, Kenway and McLeod (2000) and Teese et al (1995). Boys still locate themselves within the more 'masculine' curriculum areas - but often at their peril. As Teese et al document, boys frequently choose mathematics and science subjects that are too difficult for them, and fail. Boys are also notoriously absent in the humanities and social science areas and, as discussed in the third section of this chapter, dislike English as a school curriculum choice (see Martino 1995a).

While there is clear advantage for boys who do succeed with technology, mathematics and science, a number of boys 'fail' at school because they have chosen unwisely. The perception that location within the humanities or the arts is a 'feminine' pursuit often coerces boys into areas of the curriculum that may be against their interests, their abilities and, in the long term, their career prospects. It similarly disadvantages girls who often avoid the 'hard', apparently 'masculine' areas of the curriculum and so lock themselves out of many domains of employment.

These 'gendered' perceptions of what is appropriate curriculum knowledge infiltrate schooling in significant ways, affecting the ways in which boys are likely to identify
with, and value, particular aspects of school work. Some ways of knowing become valued over others.

## Being a 'boy' at school

Boys operate within the institution of the school differently than do girls, most noticeably in the disruption they cause through bad behaviour in and out of the classroom. The evidence is overwhelming that boys are the chief culprits of disruptive behaviour in class. In an Australian Council for Educational Research (ACER) survey of gender issues in schools, 57 per cent of primary school respondents, both boys and girls, reported that boys often disrupted classes (Collins et al 1996). This rose to 61 per cent for secondary school respondents. Boys were reported two to three times as often as girls as the perpetrators of this behaviour.

The 'doing' of aggressive and violent forms of masculinity in and around the school has become a feature of school life which girls, other boys and teachers frequently lament (Collins et al 1996; Gilbert \& Gilbert 1998). Schools are forced to spend considerable time, energy and resources on managing 'bad boys', on developing programs and strategies to handle disruptive male behaviour, and on repairing the damage done by some groups of boys to schools and school property. Unquestionably the macho behaviour at school of some boys makes life difficult for many boys, for many teachers, and for many girls.

A parental group submission on boys' education, prepared for the Australian government, highlighted this issue as one that needed to be addressed more effectively than it had been in the past (Lemaire 1994). The submission suggested that any analysis of boys and schooling needed to take account of the very considerable time and energy exercised by teachers and educational administrators in the task of boys' behaviour management. This argument is also made by Lyn Martinez, who considered the significance of these costs to schools. She claims that 'the commonly reported 80 per cent of administrators' and teachers' time which is devoted to managing boys' behaviour is time lost to curriculum leadership, organising supportive school environments, community liaison and parent support' (Martinez 1994).

In similar vein, the New South Wales Inquiry into Boys' Education (O'Doherty 1994) notes from its submissions that:

Boys represent the majority of behaviour problem students. Like girls, boys who do behave and want to learn suffer because of the poor behaviour of other boys. A typical primary school reported that 90 per cent of their detentions are boys. Of the 73 students in special units for behaviour disturbed students in NSW, 62 are boys. (p. 16)

By participating in the institution of the school, boys learn appropriate ways to act as 'a boy' within that institution. For many boys, this may mean taking up a resistant role to teacher authority, and adopting a casual attitude to school success (Gilbert \& Gilbert 1998; Mac An Ghaill 1994). A recent large Australian study (Trent \& Slade 2001) has carefully documented aspects of this disengagement and resistance to
schooling through boys' eyes. The study suggests that schools - through their organisation, management and practices - do not meet boys' needs or offer them appropriate ways in which to learn and engage with school. The study calls for a significant reconsideration of the way in which schooling is constructed - in terms of boys' needs. It clearly points to the significance of the school context for any educational issue. In our case, it highlights the importance of acknowledging that literacy learning takes place for boys within a particular gendered space, where certain gendered practices have been authorised and privileged, and where boys expect to act and behave in particular ways.

## Boys and literacy: PERFORMANCE AND ENGAGEMENT

In this third section of the chapter we review boys' literacy performance by examining achievement data; then consider the broader issues of boys' engagement with literacy across a range of modes of literacy; and, finally, examine various explanations offered for boys' under-achievement and lack of engagement in literacy learning.

## Boys' performance in literacy: achievement data

Differences in literacy achievement for boys - on simple comparison with girls have been noted in a range of countries. The International Association for the Evaluation of Educational Achievement, for instance, noted that average scores for nine-year-old girls were higher than average scores for nine-year-old boys for all 32 countries participating in the study. In 19 of these 32 countries, the difference was statistically significant (Elley 1994). In the United Kingdom, the Department for Education and Skills documented differences in achievement through all Key Stage Tests in literacy, observing that boys lag behind not only in early literacy skills, but later on in English. The gap is apparent as pupils enter school for the first time and remains sizeable throughout pupils' primary schooling and into the secondary stages (Department for Education and Skills 2001).

In Australia, reports of poorer performance in a range of contexts have raised concerns over boys' literacy. While literacy performance is particularly worrying for categories related to race and class, the lower performance of boys is evident across all categories. Boys have lower performance than girls across States, year levels, and for different forms of literacy (Alloway \& Gilbert 1997a; Marks \& Ainley 1997; Masters \& Forster 1997).

In the context of growing national concern during the 1990s about boys' poor performance on literacy-related tasks, the New South Wales Inquiry into Boys’ Education (O'Doherty 1994) found that:

Boys under-perform compared with girls in literacy tests at both year 3 and year 6 in government schools (as measured in the Basic Skills Tests). This result is replicated throughout the school system. Boys achieve notably lower grades in English at both the School Certificate and Higher School Certificate (pp. 12-13).

Similar differences between boys' and girls' achievements at year 3 and year 5 levels were documented in the publication of national benchmark data for reading and writing (Australian Council for Educational Research 1997a), and in the accompanying mapping exercise undertaken within the National School English Literacy Survey (Masters \& Forster 1997). The benchmarking exercise for reading revealed a difference of 11 per cent between girls and boys who met the reading standard at both year 3 and at year 5. For the writing standard, 16 per cent more year 3 girls than year 3 boys met the benchmark score, a gap that closed only slightly to 15 per cent at year 5. It should be noted that in the intervening years the gap between boys and girls in reading and writing standards has narrowed for both year 3 and year 5 students (See Ministerial Council for Education, Employment, Training and Youth Affairs 1999, 2000)

National tracking of students' literacy performance in the secondary school covers testing of literacy learning among year 9 students, including reading comprehension (see Marks \& Ainley 1997) and basic skills (see Australian Council for Educational Research 1997a). Marks and Ainley, and the Australian Council for Educational Research, report the superior performance of year 9 girls over year 9 boys. From their study, Marks and Ainley concluded:

Consistent with results reported in the research literature, achievement in reading is slightly higher among girls than boys. Moreover these data suggest a tendency towards a widening of the gap between males and females during the 1990s. (p. 6)

Drawing on their national literacy testing of year 9 students, the Australian Council for Educational Research claimed that 34 per cent of boys, compared with 26 per cent of girls, lacked 'basic literacy skills' (Australian Council for Educational Research 1997a).

As students move through secondary school their literacy achievements are also measured through the exit ratings they receive in the key learning area of English. The senior secondary English curriculum is more broadly demanding of literate practices, and more extensive in its assessment practices than, say, reading comprehension tests at year 9 . At this point of schooling, compelling differences between boys' and girls' literacy achievements become apparent. Boys' poor performance in secondary school English, as well as their poor participation in English and literature subjects, has been well documented at both national (see Teese et al 1995) and State levels (Martino 1995a; Alloway \& Gilbert 1997a). For example, Martino (1995a) summarised Western Australian data thus:

> Statistical analysis of students' performance in the Tertiary Entrance English Examination (TEE) in Western Australia ... indicates that twice as many boys fail English than girls and that twice as many girls achieve distinctions than boys ... (p. 346)

The picture is similar for Queensland. Year 12 English results for 2000, reported by the Queensland Board of Senior Secondary School Studies (2000), reflect this same
trend (see Table 3.1). When graded for achievement on a five-point range from Very high to Very limited, 49.1 per cent of girls, compared with 30.8 per cent of boys, achieved at the Very high or High levels. By comparison, 19.6 per cent of boys, and 10 per cent of girls achieved at the Very limited or Limited levels.

Figure 3.1: Year 12 English Results by achievement level, Queensland, 2000

| Very high |  |  | High |  | Sound |  | Limited |  | Very limited |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| $\mathbf{M}$ | $\mathbf{F}$ | $\mathbf{M}$ | $\mathbf{F}$ | $\mathbf{M}$ | $\mathbf{F}$ | $\mathbf{M}$ | $\mathbf{F}$ | $\mathbf{M}$ | $\mathbf{F}$ |  |
| 696 | 1744 | 3974 | 7261 | 7522 | 7491 | 2492 | 1567 | 480 | 254 |  |
| $(4.6 \%)$ | $(9.5 \%)$ | $(26.2 \%)$ | $(39.6 \%)$ | $(49.6 \%)$ | $(40.9 \%)$ | $(16.4 \%)$ | $(8.6 \%)$ | $(3.2 \%)$ | $(1.4 \%)$ |  |

Total enrolment at year 12: 33,480
Male enrolment at year 12: 15,164
Female enrolment at year 12: 18,316
Source: Board of Senior Secondary School Studies
A recently released research report from the Australian Council for Educational Research on tertiary entrance performance (Marks, McMillan \& Hillman 2001) concludes that the strongest influence on students' tertiary entrance results is their literacy and numeracy achievement in year 9 (p. vii). The same report also documents gender differences in achievement growth during the final years of secondary school: female students showed slightly higher mean ENTER (Equivalent National Tertiary Entrance Rank) scores than did male students (p. 21).

However the report also indicates that these gender differences vary among jurisdictions. For example, while female students scored higher than male students in New South Wales and Queensland, the differences were statistically significant only in New South Wales. In the other States, the gender differences in mean ENTER scores were not statistically significant (p. 21).

The Marks, McMillan and Hillman (2001) report suggests that, in general, the findings could be interpreted in two ways: as evidence that female students, relative to male students, are advantaged (possibly through the assessment procedures) during the final years of secondary school; or as evidence that boys are not as motivated or engaged in learning as girls, or are not choosing courses as appropriately as are girls (p. 21). The effect of poorer literacy achievement in the earlier years of schooling is obviously also significant in accounting for this difference.

In summary, gender-based analyses of literacy achievement indicate that girls, as a group, generally do better than boys on a range of measures including reading comprehension, basic skills tests, national benchmarking exercises, final-year secondary English scores and, in some States, tertiary entrance performance. The data are compelling in identifying gender as a critical variable to be considered in examinations of students' literacy outcomes.

## Which boys are most at risk?

These studies have also indicated that other student variables are powerful predictors of students' literacy achievements: the socio-economic status of their families; whether or not English is the main language spoken in their homes; and students' identification as non-Indigenous or Indigenous Australians. These national results not only identify the association between gender and literacy achievement, but clearly
indicate that other factors such as students' socio-economic background, language background and Indigenous identity may be equally or even more powerfully associated than is gender, as single-factor variables affecting literacy outcomes. For example, in research conducted by the Australian Council for Educational Research (1997a), the difference in literacy results between children of managerial or professional parents and those whose parents were unskilled manual labourers was greater than the difference between boys and girls in the main sample.

In beginning to deal with the question of which boys might be most at risk, two important data sources are highlighted in this section - the New South Wales Year 3 Basic Skills Test results compiled by Davy (1995) and the 1999 Basic Skills Test results contributed by New South Wales to the National Report on Schooling (Ministerial Council for Education, Employment, Training and Youth Affairs 1999). New South Wales test scores (as shown in Figure 3.2 (Davy 1995) show how boys' and girls' achievement scores co-vary with their socio-economic ranking; and show which groups of students are doing less well than others, when assessed at year 3 in the Basic Skills Test. Figure 3.2 also shows that (as in other States) the New South Wales State average literacy score for boys is lower than that for girls. However the data also indicate that the ten-point socio-economic ranking of students' families is far more strongly associated with children's basic literacy skills performance.

Figure 3.2: Literacy achievement of year 3 students in Basic Skills Test, New South Wales, by sex and socio-economic ranking


Source: Davy 1995

While girls, at every step in the ten-point socio-economic scale, score higher than boys, boys in the three highest socio-economic rankings fare better at literacy-related tasks than do girls in the first four points of the socio-economic scale. The data also show that boys with a socio-economic ranking of 10 score below the State average for girls, and that boys at the lowest socio-economic level score worse than does any other group.

Results of this kind show very clearly that not all boys are doing equally poorly and that some girls are scoring at lower levels than are some boys. The results suggest a complex interaction between gender and class membership. Gender remains a powerful predictor of a child's literacy performance, but the social and economic resources available to children through their homes and communities appear to impact significantly on their achievement of literacy skills.

Figures 3.3 and 3.4 provide valuable information about the literacy scores of Indigenous students and of students from language backgrounds other than English (LBOTE), disaggregated by gender - a measure not commonly available from State education systems. The New South Wales 1999 results for the year 3 Basic Skills Test (Figure 3.3) show that 37 per cent of boys, compared with 46 per cent of girls, were achieving within bands 4 and 5 , the highest two bands for year 3 students. Figure 3.4 shows that 33 per cent of boys, compared with 24 per cent of girls, were achieving only within bands 1 and 2 , the lowest skills levels. Girls and boys from language backgrounds other than English scored slightly lower than, but quite close to, the scores for the main sample. In contrast, Indigenous boys and girls were represented at less than half the rate in the upper bands of literacy achievement as measured on this test, and at twice the rate in the lower bands. Indigenous boys, however, performed at lower levels than Indigenous girls, scoring less well than any other group.

Figure 3.3: Proportion of students achieving at literacy bands 4 and 5, year 3 Basic Skills Test, New South Wales,1999


Adapted from Ministerial Council for Education, Employment, Training and Youth Affairs 1999, National Report on Schooling in Australia

Figure 3.4: Proportion of students achieving at literacy bands 1 and 2, year 3 Basic Skills Test, New South Wales,1999


Adapted from Ministerial Council for Education, Employment, Training and Youth Affairs 1999, National Report on Schooling in Australia

The results for Indigenous students are corroborated by Yunupingu (1994) who reports that Aboriginal and Torres Strait Islander students achieve lower literacy scores than non-Indigenous students and that 'Aboriginal and Torres Strait Islander girls consistently record higher achievements in literacy than boys ...' (p. 24); and see What Works, Indigenous Education Strategic Initiatives Programme, 2000.

Yunupingu also identifies the importance of students' geographical location in predicting their literacy success. According to Yunupingu (1994), while Aboriginal and Torres Strait Islander students achieve lower literacy scores in primary school than do other Australian students, the difference is even greater for Aboriginal and Torres Strait Islander students living in rural and remote areas than for those living in urban areas. Rural disadvantage in literacy scores has also been documented in the year 6 literacy tests in Queensland, where rural students scored to a 'large extent' below the main cohort (Queensland School Curriculum Council 1998).

## Boys' engagement with literacy

Considerable research evidence demonstrates how boys consistently report poor engagement with schooling, both in this country (Connell et al 1982; Walker 1988; Gilbert \& Gilbert 1998; Trent \& Slade 2001), and internationally (Willis 1977; Thorne 1993; Mac An Ghail 1994).

In a recent Australian study of boys at school, Trent and Slade (2001) document boys' disengagement with schooling in terms of pedagogy, curriculum and personal and social regimentation. Comments like these from adolescent boys were a typical feature of the research.

I want to leave school cos it's a hole. The teachers suck, the workload sucks, homework sucks, the uniform sucks.
(Year 11 student, p.13)
There are good things about school, but the bad things outweigh the good.
(Year 9-11 mixed group, p. 13)
School is, like, boring, and teachers, they are boring.
(Year 9 student, p. 33)
Literacy activities were often particularly referred to in discussion of boys' lack of engagement with schooling (see Gilbert \& Gilbert 1998; Martino 2001; Millard 1997). Gilbert and Gilbert (1998), for example, report how 'literacy' becomes synonymous with schooling for many boys. Boys in their study claimed that the sorts of boys who liked school were:
... the ones who like books ...
They're into work. Wear proper uniform. Always neat. Never late for school. Boys who are good at school like being by themselves and sitting down and reading and stuff.
(p. 206)

In this research, reading and books were frequently associated with girls, with 'work', with boredom, and with anti-masculine practice.
... I don't like to have to sit down and read a book or something, so mum and dad push me to do both.
... I hate reading. I like PC magazines and sport magazines. It tells you more stuff. It's got pictures. Books you just have to read over and over. Reading magazines is interesting. Books are boring.

Martino (1995a), in research on boys and English, quotes secondary school boys describing the curriculum subject 'English' in similarly negative ways:

English is more suited to girls because it's not the way guys think ... this subject is the biggest load of bullshit I have ever done. Therefore, I don't particularly like this subject. I hope you aren't offended by this, but most guys who like English are faggots. (p. 354)

Research that has addressed particular aspects of boys' engagement with literacy activities has focused upon four areas: boys' reading preferences and practices; boys' writing preferences and practices; boys' need for additional literacy support in the classroom; and boys' interest in electronic modes of literate practice.

## Boys and reading

Millard's research (1997) documents how children's early reading experiences are differentiated in relation to gender. She provides evidence that reading is constructed within both domestic and school settings as an interest more appropriate for girls than for boys (see also Alloway \& Gilbert 1997a; Nichols 1994). This research is supported by the considerable research on girls' reading practices (see, for example, Christian-Smith 1993; Gilbert \& Taylor 1991), which demonstrates how reading particularly the reading of 'fiction', and especially romance fiction - is a dominating cultural practice for girls and young women.

Similar support comes from research on home reading practices, which documents parental attitudes to reading. Australian work by Nichols (1994), for example, indicates that reading is clearly linked with mothers and with women; that fathers often identify themselves as non-readers; and that a 'negative identification with reading is associated with a positive identification with perceived masculine activities and qualities' (p. 303).

The recently released report by Woolcott Research Pty Ltd, Young Australians Reading (2001), confirms these findings. It documents strong gender differences in young people's reading practices, with only 22 per cent of boys (compared with 39 per cent of girls) claiming to 'really like' reading (p. 18). In the findings of this study, boys found reading more difficult than girls did, more like school work, a bit 'nerdy'
and boring, and not something that their friends did (p. 20) (see Figure 3.5). The report also indicates how negative attitudes to reading are exacerbated in secondary school contexts.

Figure 3.5: Perceptions of reading for pleasure

|  | $\begin{aligned} & \text { Total } \\ & (n=718) \\ & \% \end{aligned}$ | Gender | School |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Male } \\ (n=361) \end{gathered}$ | Female ( $\mathrm{n}=357$ ) | Primary $(n=158)$ | Secondary (n=476) |
|  |  | \% | \% | \% | \% |
| Easy | 62 | 57 | 68 | 67 | 62 |
| A bit like school work | 59 | 60 | 57 | 65 | 57 |
| Fun | 44 | 35 | 53 | 53 | 40 |
| A bit nerdy | 39 | 45 | 33 | 30 | 43 |
| Boring | 34 | 41 | 27 | 22 | 38 |
| Something most of my friends do | 28 | 21 | 35 | 33 | 25 |
| Cool | 25 | 23 | 28 | 37 | 20 |

Base: All respondents asked about each activity/ Q. 3 ( $n=718$ )
Source: Woolcott Research Pty Ltd (2001) Young Australians Reading, p. 20

The Young Australians Reading report concluded that:
...girls are more likely to see reading for pleasure as easy, fun and something that their friends do, while boys are more likely to see it as boring and a bit nerdy. Therefore, in changing the image of reading, boys must be a primary target group. (p. 20)

In general, research in Australia and internationally demonstrates that, in comparison with girls, boys read less, seldom read outside the classroom, and tend to prefer nonfiction material (see McKenna, Kear \& Ellsworth 1995; Hall \& Coles 1999; MacDonald et al 1999; Millard 1997; Moss 1998a, 1998b; Simpson 1996).

## Boys and writing

Research suggests that boys may see the way in which writing is taught and constructed at school as 'feminised' practice (Gilbert 1998; Rowe 2001), and may find some of the creative and expressive modes of writing expected at school antithetical to developing masculine identities (Martino 1995a; Alloway \& Gilbert 1997b; Frater 1997).

In addition, from the earliest years of school, teachers report that boys write less than do girls, and write from within a narrow band of genres (Poynton 1985; Alloway \& Gilbert 1997a). Boys' written stories, for example, are notoriously different from girls' in their use of violence, and draw far more extensively on non-literary sources for characters, narratives, settings and themes. Boys are not as familiar with the conventions of many of the story-writing genres usually preferred in the early literacy classroom. It is far more likely for boys to use characters and plot sequences based on action toys, films or TV programs - and to focus on an external public world of battle, aggression and retribution (Poynton 1985; Gilbert 1993; Buckingham \& Sefton-Green 1994).

## Boys and literacy support programs

Boys dominate remedial reading cohorts and programs from their earliest years at school. For example, the New South Wales Inquiry into Boys' Education (O'Doherty 1994) documented that, at the time of the Inquiry, boys were significantly overrepresented in special language and reading classes: and that, in New South Wales schools, three times more boys than girls were receiving special assistance for reading.

This over-representation has also been documented at the national level by Rowe (1998, 1999, 2000), who claims that boys constitute ' $75-80$ per cent of those children (typically in year 1) identified as 'at-risk' of poor achievement progress in literacy, and selected for participation in a Reading Recovery intervention program' (Rowe 2001, p. 3).

Internationally, this is also a common pattern. Flynn (1994), for instance, observed that the ratio of boys to girls in North American assistance programs at first and third grades was $2: 1$. She suggested that the reason that more boys than girls are identified as having 'learning difficulties' may be because of boys' aggressive and disruptive classroom behaviours. Flynn suggests that, by comparison, 'girls may only be noticed when their intellectual abilities are significantly lower than boys and their academic difficulties more pronounced' (p. 66).

Currie (1990) made a similar argument from a study of the imbalance of boys and girls receiving special help in a British school region. She concluded that teachers have different perceptions about girls and boys which influence decisions about who needs special help. Her argument was that while teachers believe that girls generally work to capacity and will cope in whatever group they are put, teachers have different perceptions of boys as learners and tend more frequently to provide them with special help (p. 149).

Arguments that it is boys' disruptive and inattentive behaviours that often lead to poor literacy achievement and the need for literacy support are supported by other data. Rowe (2001), for instance, documented that 50 per cent of consultations to pediatricians at Australian tertiary referral hospitals relate to behavioural problems, with a ratio of boys to girls of $9: 1$; and that 20 per cent of referrals relate to learning difficulties, predominantly boys demonstrating poor achievement progress in literacy (p. 3).

In similar vein (see also discussion in Nichols 1995), the New South Wales Inquiry into Boys' Education (O’Doherty 1994) noted from its submissions that:

Boys represent the majority of behaviour-problem students. Like girls, boys who do behave and want to learn suffer because of the poor behaviour of other boys. A typical primary school reported that 90 per cent of their detentions are boys. Of the 73 students in special units for behaviourdisturbed students in NSW, 62 are boys. (p. 16)

Similar figures have been documented at the national level. In an Australian Council for Educational Research survey of gender issues in schools, 57 per cent of primary
school respondents, both boys and girls, reported that boys often disrupted classes. This rose to 61 per cent for secondary school respondents. Boys were reported two to three times as often as girls as the perpetrators of this behaviour (Collins et al 1996). Similar evidence is also reported in Buckingham (2000), Browne and Fletcher (1995) and Gilbert and Gilbert (1998).

Rowe (2001) also notes that 'boys exhibit greater externalising behaviour problems in the classroom' (p. 2), citing evidence from Hill and Rowe's work (1998, pp. 326-7) indicating the significance of this poor behaviour for literacy learning:

> Of the predictors of student Literacy Achievement, the most salient was students' attentiveness in the classroom. By far the major proportion of the variance in student Attentiveness was found to be at the student-level and the most influential predictor of Attentiveness was Gender, with female students being significantly more attentive than male students. (quoted in Rowe 2001, p. 7)

## Boys' interest in electronic modes of literate practice

Research documents how girls and boys in kindergartens and pre-school contexts have different access to, and make different use of, computer technology in their social, educational and community lives (Alloway 1995), and that this difference continues throughout adolescence (Meredyth et al 2000). This gendered difference with electronic modes of communication is well-documented in research, and has been regarded as implicated in boys' poor levels of achievement in print modes of literacy, and their disengagement in literacy classrooms which frequently rely upon 'older’ modes of technology (Beavis 1999; Frater 1997; Alloway \& Gilbert 1997a; MacDonald et al 1999).

Australian studies have indicated that not only are boys far more likely than are girls to have access to technological hardware, to information technology (IT) mentors and to appropriate software in their families and communities (Newmarch et al 2000), but also to be more confident about their ability to use computers (Meredyth et al 2000), more willing to choose technology subjects within the school curriculum (Collins, Kenway \& McLeod 2000), and more likely to dominate tertiary technology programs and courses (Newmarch et al 2000).

Collins, Kenway and McLeod (2000, p. 41) note that research conducted in 1997 showed IT to have national school enrolment of 63 per cent male students and 37 per cent female students. They note that the gender breakdown of students in this area varies by State, but that in New South Wales, the State with the largest student population, 'information technology is rapidly becoming marked as a boys' subject' (p. 41). As Collins, Kenway and McLeod note, this situation had become more marked between 1995 and 1998:

By 1998 boys outnumbered girls by a ratio of more than $2: 1$ in 2 -unit computer studies, where girls' enrolment numbers have actually fallen, and by nearly $5: 1$ in 3 -unit computer studies. (p. 41)

Electronic modes of literate practice have been well-documented as key components of male youth cultures through computer game-playing and other modes of electronic game culture (Buckingham \& Sefton-Green 1994). They are far less significant in female youth cultures with many girls and young women more involved in print, film and television (Gilbert \& Taylor 1991; Christian-Smith 1993). While girls do play electronic games (see Cunningham 1995), more boys and young men play electronic games than do girls and young women (Buckingham \& Sefton-Greene 1994). And these differences are reflected in computer use.

Figure 3.6, for example, indicates gender differences in the most commonly reported home computer activities by male and female 'frequent home computer users', aged five years and over (Australian Bureau of Statistics 1999). Playing computer games, undertaking work related to studies and undertaking work-related activities are the dominant activities, but male 'frequent home computer users' spent more time on all three of these activities than did their female counterparts. In particular, 63 per cent of male 'frequent home computer users' used a home computer to play games, compared with 50 per cent of female 'frequent home computer users'.

Figure 3.6: Computer use by 'frequent computer users', 5 years and older


Source: Australian Bureau of Statistics, 1999, p. 37

This research suggests that while boys may be disengaged with older modes of literate practice, they are not disengaged with newer electronic and technological modes of literate practice and Internet texts. On the contrary, many boys are wellpositioned to take advantage of changing models of reading and writing, as electronic forms of literacy become more prevalent. However not all boys are well-positioned to take advantage of these changes.

As with competence in old literacy skills, competence in new literacy skills has already become tied to students' personal and family circumstances. A recent large national survey (Meredyth et al 2000) of the IT skills of Australian students claimed that:

> Students who did not use a computer outside school had relatively poor attainment of information technology skills, while those who indicated that they had their own computer, a modem or a scanner in the home had very high skill levels. Thirty-six per cent of students who had their own computer had all 26 skills (compared with 16 per cent of students without their own computer). (p. 9)

Within this study, Aboriginal children, children in low-income areas and in rural and isolated communities displayed the lowest levels of technology skills.

Children from within these same groups are far less likely to have access to Internet modes of text. As the 1999 Australian Bureau of Statistics data on household use of information technology demonstrates, home Internet access directly correlates with household earnings. In 1999, less than 4 per cent of Australian households with incomes below $\$ 14,001$ had home Internet access, compared with the 36 per cent of households with incomes greater than $\$ 66,000$ who were 'Internet connected' (Australian Bureau of Statistics 1999, p. 23).

## Explanations offered for boys' under-achievement and lack of engagement with literacy practices

Explanations for boys' poorer achievement and engagement in literacy can be loosely clustered within two groups: biological and role-model theory explanations that have been popularised in media discourses and debates; and educational and sociological explanations that have increasingly impacted upon schools and curriculum policy decisions.

Populist explanations about boys' poorer achievement in literacy frequently draw upon biology and role-model theory to make their case. Such explanations, typically offered through radio, television, newspaper and magazine stories, have often become 'naturalised' in contemporary culture, and been influential in shaping the views of parents and teachers.

## Biological explanations

Perhaps the most pervasive of these popular theories rests on the assumption that difference in literacy outcomes between boys and girls is a matter of biological differences between them (see review of literature on biological differences in Gilbert \& Gilbert 1998, pp. 36-46). Typical biological explanations include:
'Different brain' theory: This variation of the 'biological difference' theory is based on evidence of cerebral lateralisation, on proof of left- and right-functioning of the brain (see Moir \& Jessel 1991; Ridley 1994). In moving from neurobiological evidence that the left and right hemispheres of the brain perform different functions, it is conjectured that boys must be 'right-brained' and girls must be 'left-brained'.

Hoptman and Davidson (1994) and Rose (1992) provide a critique of this populist assumption, and indicate its scientific inconsistencies. In addition, a theory connecting brain laterality with gender can not account for the fact that groups of boys who have high levels of social and economic resources available to them consistently outperform groups of girls - and other boys - who do not have access to the same resources (see discussion in Alloway \& Gilbert 2002).
'Different chemistry' theory: In the field of biological explanations, neurobiology is often drawn upon to argue that it is the difference in chemistry that determines myriad differences in behaviours (Elium \& Elium 1992), including gendered patterns of literacy learning. Within these theories it is argued that boys' aggression and activity levels, fed by testosterone, make it hard for them to sit still long enough to learn to read or to write.

Testosterone levels in boys, however, do not rise until puberty, making underachievement in early literacy classrooms hard to explain in terms of testosterone. More significantly, there is considerable debate among biologists as to whether there is evidence to support theories that testosterone affects learning and perception (Greenstein 1993).
'Different physical development' theory: Physiology is sometimes invoked as an explanation of gendered literacy patterns in the early years of development. Luke (1992) argues that school literacy tasks involve regulation of the body in particular
ways, and populist explanations often suggest that earlier physical maturity among girls compared with boys (Cratty 1986), means that girls at an earlier age are better able to demonstrate the biomechanical skills necessary, for instance, in holding a book, turning a page and holding a pencil.

This explanation takes for granted boys' lesser-developed fine motor skills in literacy contexts without any contest as to why this might be so. There is no attempt to explain why the biomechanics of pencil grip might be underdeveloped, and yet the fine motor skills required for electronic game playing so well-developed. Just as ball throwing and other gross motor skills are sometimes underdeveloped in girls through lack of practice, it may be that the fine motor skills required for early writing may be undeveloped in boys for the same reason.

After years of research on biology and gender, there seem to be no indisputable results proving that differences in biology determine what girls and boys will become or what they will make of their lives. Most compelling is Maccoby's (1990) synthesis of decades of research on biological determinants of gender. In reviewing the evidence, Maccoby claimed that even where consistent differences between males and females were found, 'the amount of variance accounted for by sex was small, relative to the amount of variation within each sex' (p. 513).

## Role-model explanations

Because there are fewer male teachers than female teachers in the early years of schooling (O'Doherty 1994), and because fathers are less involved with children's homework and reading practice (Lareau 1992; Nichols 1994), explanations for boys' literacy underachievement are often couched in role-model theory. Within these explanations, boys are seen to lack male role-models as they learn to read and write (see Phillips 1993).

Are there too many women early childhood teachers? The involvement of men in the education of boys has become an important part of recent debates (see Biddulph 1997; Buckingham 2000). Despite the continuing dominance of men in authority positions in schools, concerns in much of the discussion on boys and schooling focus on the fact that men are a minority in the teaching force, especially in the earlier years of school.

It has been argued that this feminisation of the teaching force, especially in the early years, has contributed to the problems boys face by depriving them of adequate rolemodels of masculinity (Phillips 1993). It is often popularly assumed that if more men were available in early childhood classes, boys' literacy learning would improve because boys would not only have access to models of literate men, but they would also be engaged with teaching strategies that would be more conducive to the needs of boys.

Women are undoubtedly the main literacy figures for boys (and girls) in both home and early education contexts and for a host of social and equity reasons, this situation needs to be redressed. Nevertheless, being a male teacher may not be all that it takes when it comes to transforming literacy learning for boys: gender does not necessarily affect a teacher's competence with pedagogy (see discussion in Gilbert \& Gilbert

1998: pp. 242-4). As Rowe (2001) argues, effective teaching strategies are of more importance than the gender of either the student or teacher. His research suggests that the key to improving literacy outcomes for boys is to focus on 'quality teaching and learning, supported by strategic teacher professional development' (p. 17).

Are there too few fathers as role-models? Similar to the 'too many women teachers' theory is the argument that boys need fathers: that boys' poor behaviour and school performance are linked with the absence of male role-models in the home, and that boys' lack of interest in literacy is linked with the invisibility of the role-model of father as reader and writer.

Changing contemporary societal structures have undoubtedly meant that many children are now raised in sole-parent families (Australian Bureau of Statistics 2000), and nearly 90 per cent of sole-parent families are headed by mothers (Buckingham 2000, p. 43). When sole parenthood correlates with poverty - as is often the case (see Australian Bureau of Statistics 2000, pp. 140-1) - both boys and girls in sole-parent families are likely to find themselves at educational and social disadvantage, whether the parent is a mother or a father. Children most at risk of literacy failure and school completion are children - but especially boys - from low socio-economic groups (Marks \& Ainley 1997; Ainley 1998).

However not all female-led, sole-parent family groups face educational and literacy failure, and an increasing body of literature documents a more positive image of this form of parenting (see, for example, Silverstein \& Rashbaum 1994; Smith 1995).

There are additional complexities with the issue of father as role-model. Even where fathers are present in the family, it is well documented that they contribute minimally to their sons' and their daughters' literacy learning (Phillips 1993; Lareau 1992) or provide literacy models in the home (Nichols 1994). Women generally perform literacy work with children in the home, and are the readers and writers in home contexts. The literate work that men do is not necessarily visible to children, given that much of it takes place in work and other public contexts.

If educators draw upon popularised biological or role-model theory explanations to understand boys' literacy underachievement, they gain only a limited vision of what can be done to improve literacy learning. Theories of literacy learning based on biology lead more logically to medical, than to educational, intervention as in the case of ADD and ADHD. And theories about too many women teachers and too few fathers at home, leave educators with little space to manoeuvre. Each of these explanations is essentially a deficit theory about boys. In each case, boys are considered to have too much (for example, testosterone), too little (for example, physical maturity) or too few (for example, fathers or male role-models) of what it takes to become a literate person. Regardless of the questionable empirical status of these assertions, their utility for educators is dubious.

## Educational and sociological explanations

Professional and sociological explanations for boys' underachievement in literacy can be loosely collected within two clusters: explanations that focus on improving and changing pedagogy, school organisation and assessment to better meet the needs of
boys; and explanations that focus on unpacking and understanding social constructions of gender, in particular the impact of constructions of masculinity upon boys' learning.

Inevitably biological and psychological explanations of boys' behaviour and attitudes become interwoven within some of these educational explanations. Different pedagogy and assessment, for example, are sometimes seen to be necessary because of assumed biological differences between boys and girls; and sex-segregated modes of school organisation are seen as desirable because of boys' different 'chemistry'. Strategies for improving literacy outcomes for boys often draw upon educational and sociological explanations, as well as biological and role-model theory explanations.

Pedagogy, school organisation and assessment: Several research studies have addressed the question of whether changes in pedagogical strategies, school organisation practices and assessment modes can improve educational outcomes and literacy achievement, for boys. This work is situated within a significant body of research on boys and schooling, which considers boys' more general alienation and disengagement with organised school learning (as in, for example, Trent \& Slade 2001). It takes as a starting point that boys are disengaged with current school organisation and pedagogical practice, and that, for a number of reasons (social as well as biological), they struggle with the contemporary literacy demands of modern schooling.

A clear example of this work can be found in a British survey conducted by Graham Frater (1997), Improving Boys' Literacy: A Survey of Effective Practice in Secondary Schools. From this survey, Frater draws six distinguishing features of effective English practice for promoting boys' literacy:

- provision of schemes for paired, silent and voluntary reading;
- explicit teaching of advanced reading skills;
- paying close attention to the structure of English lessons and to the structuring of pupils' thinking and writing;
- establishing both an ethos and expectation that effectively enlists the cooperation of both;
- providing teaching materials with a strong appeal to boys' interests and preferences;
- having clear objectives for the grouping arrangement used for English.

An interesting aspect of this list above is that, with the exception of the fifth item, none of the stated features could be seen to be male-exclusive. It could be argued that each feature is equally as valuable for girls' literacy learning as it is for boys'.

In addition, it could be argued that there are problems associated with the fifth item providing teaching materials with a strong appeal to boys' interests and preferences if these materials draw uncritically from a narrow domain of literary genres, and a violent, aggressive cultural domain (see discussion in Chapter 6). Not only do such materials potentially deny boys access to a wide repertoire of literacy practices, but they also reinforce many of the forms of male behaviour which are regarded as promoting disengagement with literacy.

Rather than narrowing literacy programs to accommodate what are regarded as 'boys' interests', it seems more important to broaden boys' and girls' interests, so that both groups might engage more effectively with a variety of literacy modes. Rowe (2001), for instance, warns of the dangers of 'dumbing-down' the curriculum to meet the differential needs of boys. He claims that 'enhanced operational literacy and related verbal reasoning and written communication skills by students throughout their schooling' are essential for effective participation in a postmodern, information-rich society (p. 9). His argument was that schools need to focus upon teaching and learning strategies as a key to improving boys' literacy outcomes.

Rowe bases his case upon research into teacher and school effectiveness, arguing that:

> ... the quality of teaching and learning provision with major emphases on literacy and related verbal reasoning and
> written communication skills are by far the most salient influences on students' cognitive, affective, behavioral and experiential outcomes of schooling - regardless of student or teacher gender, and specific class/school gender groupings.
> (p. 1)

Rowe's research focuses attention on the need for quality teaching and learning, and strategic teacher professional development, in improving literacy outcomes for all students, but particularly for boys. It is boys, Rowe argues, who lack the developmental capacity and normative socialisation experiences to cope successfully with the verbal reasoning requirements and general literacy demands of school curricula and assessment. Rowe presents this focus as of more value than school organisational changes, notably same-sex class or school groupings; and certainly research on the effects of same-sex class or school groupings for improving boys’ educational outcomes is far from conclusive.

While research indicates some advantages for both boys and girls in same-sex schooling (see, for example, Daly 1996; Woodward, Fergusson \& Horwood 1999), any advantages indicated are generally qualified within the studies and cannot be generalised across schools. As Woodward, Fergusson \& Horwood (1999) argue, while New Zealand children attending same-sex schools tend to perform better than their coeducated peers across a number of educational outcomes, pre-entry differences in children's academic, behavioural, social and family functioning explain much of this improvement (p. 142).

Some research on pedagogy also suggests that the construction of contemporary literacy pedagogy contributes to boys' poor achievement and engagement in literacy. Research by Hunter (1988), Gilbert (1989b) and Patterson (1995) has demonstrated how current constructions of literacy pedagogy draw strongly upon discourses of personalism, moral regulation and emotional disclosure; and interview research data has indicated that this alignment is considered undesirable by some boys (Gilbert \& Gilbert 1998; Martino 1995a; Rowe 2001), for example:

My English teacher wants me to write about my feelings, my
History teacher wants me to give my opinions, and my

Science teacher wants me (to) write on my views about the environment! I don't know what my feelings, opinions and views are, and I can't write about them. Anyway, they're none of their bloody business! I hate school!! I only wish I could write about the things I'm interested in like sport and military aircraft. (Rowe 2001, p. 3)

Research in Australia has also shown that girls and boys respond differently to assessment tasks in English literacy classrooms (Senior Secondary Assessment Board of South Australia 1993), and that marking practices in some literacy tests favour girls (Matters, Pitman \& Gray 1997). In terms of senior school literacy assessment, the work of Teese et al (1995) has shown that girls, on average, do better in all types of Year 12 English questions except short-answer or multiple-choice items.

Construction of gender explanations: A second cluster of explanations about boys' literacy disengagement and underachievement focuses upon ways in which social constructions of masculinity, and social relationships between femininity and masculinity, influence boys' learning and boys' attitudes to literacy. The New South Wales Inquiry into the Education of Boys (O'Doherty 1994) recommended that the core school curriculum should include 'the construction of gender' (pp. 31-2); and many of the submissions made to the recent House of Representatives Inquiry into Boys' Education observed the significance of boys' social and cultural experiences of masculinity for learning (see, for example, Analysis and Equity Branch, DETYA 2000; Mills \& Lingard 2000; Yates 2000).

A large survey of gender and schooling in Australia (Collins et al 1996) concluded that:

The big challenge for schools in relation to boys is to support them to dismantle the walls they construct around themselves and others to feel safely 'masculine'. This includes supporting them to accept and enjoy a variety of masculinities (and femininities) in others ... (p. 176)

The most recent Australian report on factors influencing the educational performance of males and females in school (Collins, Kenway \& MacLeod 2000) claims that 'being locked into a traditional and narrow gender identity and peer group which constrains rather than enables educational choice and flexibility' (p. 5) is a key firstorder educational disadvantage. The study recommended that programs be developed that encourage boys and girls to move towards positive and flexible gender identities and peer cultures, arguing that:

Some boys and girls who have poor educational outcomes appear to subscribe to outmoded and inflexible gender identities and peer cultures, the effects of which tend to limit their life choices and chances. The ways some boys and some girls demonstrate their understanding of what it is to be male or female may work against their best interests as far as educational and employment outcomes are concerned ... (pp. 10-11)

The study also made clear that there were many 'masculinities' and many 'femininities' on offer, and that young people were positioned differently through ethnicity, geography and privilege in the ways in which they could take up particular gender identities.

The pervasive influence of stereotypical masculine stereotypes and constructs of masculinity upon boys' performance and engagement with schooling has been demonstrated by many researchers (see, for example, Alloway \&Gilbert 1997b; Collins, Kenway \& MacLeod 2000; Gilbert \& Gilbert 1998; Lingard \& Douglas 1999; Connell 1996; Davies 1989a; Kenway \& Fitzclarence 1997; Mac An Ghail 1994; Martin, 1992), and strategies for working with these stereotypes and constructs across the school have been well-developed in national policy (see, for example, Australian Education Council 1993; Ministerial Council for Education, Employment, Training and Youth Affairs 1997).

The role that language plays in this social construction of gender has been wellresearched and well-recognised. The impact of gendered language practices upon children's language acquisition and language use (Swann, 1992), children's play (Thorne 1993), children's reading and writing (Davies 1989a; 1993; Gilbert 1989c; 1993), and youth cultures (Buckingham \& Sefton-Green 1994; Gilbert \& Taylor 1991; Alloway \& Gilbert 1997c), have been strong research fields for some time.

Not surprisingly, the literacy classroom is often regarded as an important site for pedagogical work on gender. Collins, Kenway and MacLeod (2000), for instance, argue that a key component of curriculum development research should be:
> different approaches to critical literacy which make issues of gender central and their effectiveness in achieving their intentions at different stages of schooling - particularly the early years, late primary and middle school. (p. 15)

The interrogation and critique of a wide range of social texts like film, TV, newspapers, magazines, advertisements, novels and stories, in terms of their construction of gender, have been encouraged as part of a 'critical literacy' agenda for schools (see Alloway \& Gilbert 1997a; Davies 1997; Luke \& Bishop 1994; Luke, O’Brien \& Comber 1994; Martino 1995b; Martino \& Mellor 1995; Mellor, Patterson \& O'Neil 1989). It has been argued that such an agenda can improve boys' literacy engagement and performance by making them more active participants in the language classroom, and by making their own constitution through discourses of masculinity visible and explicit (Davies 1997; Martino 1995b; Martino \& Mellor 1995; Alloway \& Gilbert 1997a).

The danger implicit in this work is that a negative deconstruction of masculinity is unlikely to be desirable or of interest to boys, who may resist and disrupt strategies which critique masculinity (see Davies 1989b). In addition, there is no reason to assume that knowledge of how gender operates within and across language contexts would guarantee shifts in attitude towards literacy, or shifts in performance. Boys would need to see why a knowledge of gender can be of benefit in real-life contexts: in job interviews, workplace communities, peer groupings and school playgrounds.

And they would need to understand how constructions of gender can work against their best interests in these contexts.

Knowledge of how gender operates in classrooms to inhibit and restrict learning is important knowledge for teachers to use, and this, too, has been addressed in national policy (see, in particular, Australian Education Council 1993). Butler's (1990) theorisation of gender as 'performance' has been important in making gendered aspects of boys' and girls' classroom behaviour more visible, and has significant implications for recognising how differently boys and girls may be positioned as gendered subjects in language classrooms. Recent work suggests that boys' willingness to participate in classroom oral work, for example, is directly associated with the masculine identities they have been able to take up within the classroom (Alloway, Gilbert, P., Gilbert, R. \& Henderson in press).

Those explanations of boys' underachievement and disengagement with literacy that draw upon social construction of gender theories, suggest that an understanding of the way gender operates in and through language is important knowledge not only for students and teachers to have - but also for parents (see Smith 1995). If family literacy contexts are to change, so that fathers may become more actively engaged in literacy activities with boys, then the construction of literacy as 'feminised' practice needs to be clearly foregrounded and interrogated in the family.

Most of the theoretical literature about boys and schooling uses 'construction of gender' explanations. However while these explanations provide powerful tools for knowing and reading one's own constitution as a gendered subject, appropriate pedagogies that make such constitution visible for boys and young men are more difficult to construct (see discussion in Gilbert \& Gilbert 1998, pp. 222-51). In Australia, Boys and Literacy: Teaching Units (Alloway \& Gilbert 1997b) provides teaching examples, as do several Chalkface Press publications (see Martino \& Mellor 1995; Mellor, Patterson \& O’Neil 1989).

## SUMMARY

In this chapter we have ranged across the boys and literacy issue from a number of different perspectives. Initially we described and clarified the position we have taken in relation to literacy, arguing that 'literacy' is productively understood as an opentextured category of socio-cultural practice. We then briefly contextualised the broader school context in relation to boys' learning - notably demonstrating the different ways in which boys and girls participate and perform at school, and the particular ways in which schools themselves are gendered institutions. Finally, we reviewed research and theorising about 'boys and literacy' - considering both achievement data and engagement issues, and examining explanations offered to explain boys' different performance and engagement with literacy.

The chapter provides a background for understanding the work of the project. In the subsequent chapters we report on the data produced by the study, and situate its analysis within the conceptual ground developed within this chapter.

## 4

## Surveying teachers and parents

This chapter summarises the findings from surveys conducted to explore teachers' and parents' views of the nature and causes of boys' literacy difficulties, and what might be done in schools and homes to overcome these difficulties. The survey instruments are found in Appendices 1 and 2, and the structure of the instruments and the data collection procedures are found in Chapter 2.

## The teachers' survey

In the first part of the survey, teachers were asked to provide some background information about themselves, their schools, and the communities in which their schools operated. In the second and third parts of the survey, teachers were asked for their views concerning the problem of literacy learning, the ways in which difficulties in literacy performance are specifically manifested, and how schools might overcome these difficulties and problems.

## The participants and their schools

The teachers were asked to describe themselves in terms of their gender, their years of teaching, the number of years they had taught in their current school, their professional qualifications, and the year level(s) at which they currently taught. Numerical and percentage data on these features are presented in Figures A3.1 to A3.5 of Appendix 3. Below is a brief summary discussion and some observations about this sample of teachers.

Most of the teachers in the sample were female (71\%), had taught for more than 10 years ( $76 \%$ ), and had been in the current school for less than five years( $57 \%$ ). Teachers with experience across all grades ( $32 \%$ ) and upper-primary teachers ( $20 \%$ ) formed the largest groups in our sample. Most of the teachers (62\%) had four years of training, and a substantial proportion (20\%) had completed additional educational qualifications.

This sample seems reasonably close to the national picture, in particular for the primary grades of teaching. The sample shows predominantly female teachers, generally with high levels of experience, with university education or the equivalent. There is a higher representation than expected of teachers with successful higherdegree study experience.

The survey also asked for a description of the teachers' schools in terms of the system in which the school operated, whether or not the school was single-gender or coeducational, and the overall enrolment of the school. In addition, we asked teachers to provide their schools' postcodes. Using a file provided by the Commonwealth Department of Education Science and Training (DEST), which matched socioeconomic status (SES) and rural/urban indicators to all Australian postcodes, we obtained SES and rural indicators for the respondents' schools. These ratings were
based on 1996 census data, the latest available at the time of writing. Again, numerical and percentage data on these features are presented in Figures A3.6 to A3.11 of Appendix 3. Below is a brief summary of the sample.

Most respondents taught in schools located in Queensland (41\%), New South Wales $(40 \%)$ and Tasmania ( $11 \%$ ), the three States in which the study was located. A smaller percentage of respondents taught in schools in Victoria, South Australia and Western Australia (7\%). They worked mostly in coeducational (93\%) and State (70\%) schools, and in schools with enrolments larger than 200 ( $78 \%$ ). Their schools were located in either medium-SES (48\%) or low-SES (34\%) areas and urban (57\%) areas.

The schools in which these respondents worked are probably more demographically varied than is the population of schools nationally. While interpretations of the results need to keep this in mind, it allows in all probability for a greater range of concerns to be evident.

## The participants' classrooms and communities

Respondents were asked to indicate proportions of students in their classrooms or people from the schools' surrounding communities who were:

- from language backgrounds other than English (LBOTE);
- Indigenous Australians;
- in low socio-economic circumstances;
- recent migrants;
- refugees;
- transient people; or
- people with disabilities.

Teachers were asked to respond on a six-point scale ranging from ' $0-5 \%$ ' through to 'more than $60 \%$ '. Numerical and percentage data on these features, and the full scale, are presented in Figures A3.12a to A3.12g of Appendix 3. Below are brief summaries of the respondents' classrooms and the communities that surround their schools.

The distributions for all groups, with respect to both classroom and surrounding communities, were skewed towards the lower end of the scale. Also, respondents reported smaller proportions for all groups in their classrooms than in the surrounding communities. Most respondents reported working with fewer than $5 \%$ of students who had language backgrounds other than English (72\%), or who were Indigenous (71\%), recent migrants ( $89 \%$ ), refugees ( $97 \%$ ) or transient ( $57 \%$ ). There was considerable spread with respect to the socio-economic levels of the students with $12 \%$ of teachers reporting that $60 \%$ or more of the children in their classes come from low-SES backgrounds. The reported levels of students with disabilities is high, with most teachers indicating significant levels, and about one in four indicating levels of higher than $10 \%$. Moderate levels of transience were reported. More than one teacher in five reported that one-tenth of his or her students were transient. Again, the overall picture provided by these teachers is a diverse one, in particular with respect to socioeconomic status, transience and disability.

## Cluster analysis

These profiles of classroom and community characteristics form relatively homogeneous clusters of respondents using cluster analysis. Simply, a 'cluster' is a grouping of respondents formed in such a way that members of a particular cluster are more similar to each other in their profiles than to other respondents in other clusters. The particular clustering procedure employed here is Isodata. It proceeds by partitioning the sample into increasingly larger numbers of clusters with, generally, smaller numbers of respondents in each cluster. Decisions concerning the optimal number of clusters depend on the percentage of variance gained in the move from $k$ to $k+1$ clusters. If the percentage of variance gained in a move from $k$ to $k+1$ clusters is less than $5 \%$, then the optimal number of clusters is generally taken to be k . That is, it is generally not considered worthwhile to proceed to the more complex $\mathrm{k}+1$ cluster solution when that more complex solution accounts for less than an additional 5\% variance.

The six-point scale provided in the response set (see Figure A3.12 of Appendix 3) was used: $1=0-5 \% ; 2=5-10 \%$, through to $6=$ more than $60 \%$. There was a large amount of missing data in the classroom and community sets for 'recent migrant', 'refugee' and 'transient' (see Figures A3.12d, e, and fof Appendix 3). Therefore, these variables were dropped from the analysis. After removing respondents with missing data in one or more of the remaining variables, 321 respondents remained in the cluster analysis for the classroom set of variables, and 358 respondents remained in the analysis for the community set of variables.

## Clustering teachers on the basis of their classroom characteristics

For the classroom set of responses, cluster analysis showed that the movement from four to five clusters gained an additional $6.3 \%$ of variance, and the move five to six clusters gained another 3.3\%, indicating a five-cluster solution.

We now proceed to an interpretation of this five-cluster solution. Interpretation depends on the difference between a cluster's mean for each variable and the entire sample's mean for each variable. Such a measure is a standardised mean. Figure 4.1 shows the standardised means for each cluster on each variable, as well as the unstandardised means. Generally, a standardised mean greater than 0.5 (or less than $-0.5)$ is taken to be sufficiently substantial for comment; that is, the cluster is on average scoring well above (or well below) the entire sample's mean. To aid in interpretation, standardised means greater than 0.5 (or less than -0.5 ) are shown in bold in Figure 4.1, and standardised means greater than 1 (or less than -1 ) are underlined. The sign of the standardised mean ( + or - ) indicates whether or not it is above (+) or below ( - ) the entire sample mean for that variable. As an example, for cluster I, the standardised mean for 'Low SES' is -0.72 , and for 'Disability' is -0.57 , indicating that cluster I is characterised by below-average proportions of low-SES students and students with disabilities.

Figure 4.1: Means for clusters of respondents on proportions of students in classrooms who are LBOTE, Indigenous, low-SES, or students with disabilities

| Characteristic | Clusters based on respondents' classroom profiles |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { I } \\ & (n=156) \end{aligned}$ | $\begin{aligned} & \text { II } \\ & (n=40) \end{aligned}$ | $\begin{aligned} & \text { III } \\ & (n=51) \end{aligned}$ | $\begin{aligned} & \text { IV } \\ & (n=26) \end{aligned}$ | $\begin{aligned} & V \\ & (n=48) \end{aligned}$ |
| Standardised means |  |  |  |  |  |
| LBOTE | -0.35 | $\underline{2.22}$ | -0.39 | -0.09 | -0.25 |
| Indigenous | -0.34 | -0.20 | 0.08 | $\underline{2.76}$ | -0.30 |
| Low SES | -0.72 | 1.00 | 0.94 | 0.97 | -0.02 |
| Disability | -0.57 | 0.10 | -0.07 | 0.55 | 1.54 |
| Unstandardised means |  |  |  |  |  |
| LBOTE | 1.21 | 4.48 | 1.16 | 1.54 | 1.33 |
| Indigenous | 1.13 | 1.25 | 1.49 | 3.81 | 1.17 |
| Low SES | 1.76 | 4.68 | 4.57 | 4.62 | 2.94 |
| Disability | 1.33 | 2.08 | 1.88 | 2.58 | 3.69 |

Interpretation of the cluster analysis solution in Figure 4.1 is as follows:

- Cluster I: All the standardised means are negative, and because the distributions are skewed towards the low end $(0-5 \%)$ of the scale, this cluster is characterised as having slightly below-average proportions of all groups (LBOTE, Indigenous, low SES, or students with disabilities).
- Cluster II: Large positive standardised means for LBOTE and low SES indicate that this cluster is characterised by higher than average proportions of students from low-SES backgrounds and language backgrounds other than English.
- Cluster III: Like cluster II, this cluster has higher than average proportions of students from low-SES backgrounds, but unlike cluster II, this cluster has slightly less than average proportions of students from language backgrounds other than English.
- Cluster IV: This cluster has higher than average proportions of Indigenous students, and, to a lesser extent, higher than average proportions of students from low-SES backgrounds and students with disabilities.
- Cluster V: This cluster has higher than average proportions of students with disability.

This analysis allows combinations among the variables to be drawn out. For instance, all but clusters I and V report some levels of low-SES attendance in their classrooms, either on its own or in combination with LBOTE (cluster II) or Indigenous students (cluster IV). Various aspects of low socio-economic status (a 'compelling' predictor of literacy achievement, according to the National Australian study of literacy performance conducted by Masters \& Forster 1997) are thus delineated.

We can establish some validity for the cluster-analysis solution by noting that respondents' membership in these clusters is associated with other variables, in particular with the socio-economic rating $\left(\chi^{2}(8)=17.8, \mathrm{p}=0.02\right)$ and rural/urban status $\left(\chi^{2}(8)=43.0, p<0.001\right)$ of the school. The association with socio-economic rating is in predictable directions: Cluster I respondents (small proportions of all) were more likely than chance to be in higher socio-economic settings; and cluster III (high proportions of low-SES only) and cluster IV (high proportions of Indigenous
and low-SES) respondents were less likely than chance to be in higher socioeconomic settings.

The association with rural/urban status is as follows: Cluster II respondents (high proportions of LBOTE and low-SES) were more likely than chance to be located in urban schools; and Cluster IV respondents were more likely than chance to be located in rural schools.

Taken as a group, these respondents work in classrooms with considerable diversity. About half work with groups with some low-SES students and students with disabilities. Most work with low-SES students who are, variously, Indigenous or who have language backgrounds other than English. About one teacher in six works with students with a comparatively high rate of learning or other disabilities.

## Clustering teachers on the basis of the characteristics of their schools' surrounding communities

A similar set of analyses was conducted on the respondents' descriptions of the communities that surround their schools. For the community set of responses, cluster analysis showed that the movement from four to five clusters gained an additional $6.2 \%$ of variance, and the move from five to six clusters another $3.6 \%$, indicating a five-cluster solution. This five-cluster solution breaks the 358 respondents into clusters that have the profiles shown in Figure 4.2.

Figure 4.2: Means for clusters of respondents on proportions of their schools' surrounding communities who are LBOTE, Indigenous, low-SES, or people with disabilities

| Characteristic | Clusters based on respondents' community profiles |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { I } \\ & (n=152) \end{aligned}$ | $(n=41)$ | $\begin{aligned} & \text { III } \\ & (n=67) \end{aligned}$ | $\begin{aligned} & \text { IV } \\ & (n=73) \end{aligned}$ | $\begin{aligned} & V \\ & (n=25) \end{aligned}$ |
| Standardised means |  |  |  |  |  |
| LBOTE | -0.33 | 1.95 | -0.32 | -0.46 | 1.00 |
| Indigenous | -0.52 | -0.20 | -0.22 | 0.56 | $\underline{2.46}$ |
| Low SES | -0.82 | 1.01 | -0.06 | 0.65 | 1.54 |
| Disability | -0.67 | 0.33 | 1.11 | -0.28 | 1.34 |
| Unstandardised means |  |  |  |  |  |
| LBOTE | 1.48 | 4.49 | 1.49 | 1.32 | 3.24 |
| Indigenous | 1.13 | 1.45 | 1.42 | 2.19 | 4.08 |
| Low SES | 1.67 | 4.66 | 2.91 | 4.07 | 5.52 |
| Disability | 1.42 | 2.49 | 3.31 | 1.85 | 3.56 |

Interpretation of the cluster analysis solution in Figure 4.2 is as follows:

- Cluster I: All standardised means are negative. This cluster is characterised as being located in communities with below-average proportions of all groups (LBOTE, Indigenous, low SES, and students with disabilities).
- Cluster II: Large positive standardised means for LBOTE and low SES indicate that this cluster is characterised as being located in communities with higher than average proportions of people from low-SES backgrounds and language backgrounds other than English.
- Cluster III: This cluster is located in communities with higher than average proportions of people with disability.
- Cluster IV: This cluster is located in communities with higher than average proportions of Indigenous people and higher than average proportions of people from low-SES backgrounds.
- Cluster V: This cluster is located in communities with higher than average proportions of all groups (LBOTE, Indigenous, low SES, and students with disabilities).

Again, we can establish validity for the cluster-analysis solution. First, we note a similarity in the ways in which the community characteristics and the classroom characteristics cluster and, indeed, the association between them is statistically significant $\left(\chi^{2}(16)=46.0, p<0.001\right)$, indicating high degrees of correlation among the classroom and community ratings.

Secondly, respondents' membership in these clusters is again associated with the SES rating of the school $\left(\chi^{2}(8)=36.6, p<0.01\right)$, and the rural/urban status of the school $\left(\chi^{2}(8)=48.0, \mathrm{p}<0.01\right)$. The association with SES rating is as follows: Cluster I respondents (small proportions for all) are more likely than chance to be located in high-SES communities and less likely than chance to be located in low-SES communities; Cluster V respondents (high proportions for all) and cluster IV respondents (high proportions of Indigenous and low-SES) follow the opposite trend. The association with rural/urban status is as follows: Cluster II respondents (high proportions of LBOTE and low-SES) were more likely than chance to be located in urban schools; and Cluster III respondents were more likely than chance to be located in rural schools.

Again, considerable diversity in the communities served by these teachers is evident. Patterns of association indicate that high- and middle-SES communities are represented, as are urban, rural and isolated communities. Within each of these categories, we find statistically more middle- and lower-SES rural communities with substantial proportions of Indigenous people in classrooms and communities. Students and communities with notable proportions of speakers of languages other than or as well as English are at middle and lower socio-economic levels and generally in urban settings.

## Perceptions of the issue of boys, schooling and literacy learning

In this section of our analysis of the teachers' survey, we investigate teachers' perceptions of boys' literacy education taken from their responses to Sections 2 and 3 of the survey. In section 2, teachers responded on a Likert scale to a set of propositions we put to them, and in Section 3, teachers responded to open-ended questions concerning possible sources of boys' difficulties in literacy learning and what might be done to help them.

## Responses to Likert items

To explore the respondents' perceptions of aspects of boys' literacy learning, a set of 16 statements was presented to respondents. We used two main analytic procedures to analyse responses to the statements. The first, principal components analysis, focuses on the statements, and attempts to find groups of like statements - statements that tend to go together in a statistical sense. A statement in a group is more highly
correlated with other members of the same group than it is with members of other groups. If a respondent gives one member of a group a high score, then there is a tendency for the respondent to give all members of the group high scores; and vice versa, if a respondent gives one member of the same group a low score then there is a tendency for the respondent to give all members of the group low scores. The second procedure, cluster analysis, explained earlier in this chapter, focuses on the respondents, and attempts to find groups of like respondents. If one member of a group of respondents gives, for instance, high scores to two statements and low scores to another two statements, then all members of this group of respondents tend to follow this same profile of scores.

Respondents were asked to rate their degree of agreement or disagreement with each statement (shown in Figure 4.3) on a 6-point Likert (with $1=$ strongly disagree, and 6 $=$ strongly agree). A total of 413 respondents rated most of these statements, and where there was missing data, it was substituted by the mean. The means and standard deviations are shown in Figure 4.3.

Figure 4.3: Means and standard deviations for 16 statements concerning boys and literacy

| Statement | Mean | Standard deviation |
| :---: | :---: | :---: |
| 1. Some groups of boys have lower literacy levels than others. | 4.83 | 1.17 |
| 2. If there were more male teachers in primary schools, boys' literacy learning would improve. | 3.65 | 1.39 |
| 3. If more adult men were involved with boys in reading and writing activities, boys' literacy learning would improve. | 4.53 | 1.26 |
| 4. Teachers need to understand more about male culture to improve boys' literacy learning. | 4.20 | 1.34 |
| 5. Boys' behaviour at school significantly affects their levels of literacy achievement. | 4.73 | 1.18 |
| 6. There has been a lack of focus on boys' education over the last two decades. | 3.75 | 1.47 |
| 7. The way that boys' brains develop accounts for boys' literacy learning. | 3.18 | 1.27 |
| 8. There are not enough books of high-interest value to boys available in schools. | 3.76 | 1.44 |
| 9. Boys are not ready for school at the compulsory entry age. | 3.62 | 1.48 |
| 10. Boys prefer to read non-fiction to fiction. | 4.04 | 1.23 |
| 11. If schools adopted different assessment practices, boys' literacy results would improve. | 3.42 | 1.30 |
| 12. Boys often think that reading and writing activities are more appropriate for girls and women. | 3.92 | 1.28 |
| 13. If boys attended single-sex schools, their literacy learning would improve. | 3.32 | 1.32 |
| 14. Boys prefer technological forms of literacy to print-based forms of literacy. | 4.05 | 1.21 |
| 14. If literacy classes were segregated by gender, boys' literacy learning would improve. | 3.47 | 1.33 |
| 15. Many current teaching practices in literacy classrooms are not conducive to boys' literacy learning. | 3.89 | 1.40 |

It is notable that the means for most statements were on the 'agree' side of the scale (greater than 3.5 ). Four statements that received particularly high mean ratings were statements 1, 3, 4 and 5, dealing with boys' behaviour, a need for greater understanding of male culture, a need for greater involvement of adult men in boys' literacy activities, and literacy achievement for different groups of boys. Respondents disagreed on average, albeit only slightly, with statements 7, 11, 13 and 15, dealing with boys' brain development, the need to adopt different assessment practices, and segregation.

In order to explore the patterns of associations among these items, and to give a simpler set of issues for later discussion, a principal components analysis was conducted. This procedure takes account of the correlations among the 16 items and attempts to reduce the dimensionality of the total set by forming a smaller set of underlying components. The optimal number of components is determined by
examining eigenvalues, a quantity that summarises the amount of variance explained be each component. Typically, components with eigenvalues greater than 1 are retained. With respect to the 16 statements above, the analysis suggested five components. However, one component was dropped for reasons explained below.

Analysis now turns to interpretation of the four components. All statements make some contribution to the definition of a component, but interpretation focuses on those statements that make substantial contributions. A statement's contribution to a component is determined by its loading on that component, a measure of the correlation between the statement and the component. Figure 4.4 shows the loading of each statement on each component (that is, the contribution that each statement makes to the definition of each component). Loadings greater than 0.4 (or less than -0.4 ) are taken to be significant. In Figure 4.4, items contributing to the definition of a component are bolded. Each statement should contribute to the definition of one component only, but we note that statement 4 contributes to the definition of two components. However, because there is a reasonably large difference between the two loadings, and because 0.43 is close to the cut-off, we will count statement 4 as contributing to the definition of component 1 only. As an example, component 1 is defined substantially by statements 2,3 and 4 , statements dealing with the need for males to be involved with boys' literacy education, and the need to understand male culture. Thus, component 1 has something to do with maleness.

Figure 4.4: Structure matrix showing loadings on four components

| Statement | Component 1 | Component 2 | Component 3 | Component 4 |
| :---: | :---: | :---: | :---: | :---: |
| 1 | -0.01 | 0.02 | 0.01 | 0.09 |
| 2 | $\mathbf{0 . 7 9}$ | 0.08 | 0.04 | 0.21 |
| 3 | $\mathbf{0 . 7 8}$ | 0.05 | 0.20 | 0.15 |
| 4 | $\mathbf{0 . 5 7}$ | $\mathbf{0 . 4 3}$ | 0.20 | -0.08 |
| 5 | 0.17 | 0.10 | 0.20 | 0.06 |
| 6 | 0.40 | $\mathbf{0 . 6 2}$ | -0.07 | 0.10 |
| 7 | -0.05 | $\mathbf{0 . 7 1}$ | 0.05 | 0.24 |
| 8 | 0.25 | 0.20 | $\mathbf{0 . 4 8}$ | 0.08 |
| 9 | -0.35 | $\mathbf{0 . 4 7}$ | 0.23 | 0.18 |
| 10 | -0.07 | 0.01 | $\mathbf{0 . 7 5}$ | -0.05 |
| 11 | 0.18 | $\mathbf{0 . 5 5}$ | 0.39 | 0.06 |
| 12 | 0.17 | 0.23 | $\mathbf{0 . 5 0}$ | 0.13 |
| 13 | 0.11 | 0.11 | 0.10 | $\mathbf{0 . 8 9}$ |
| 14 | 0.10 | 0.09 | $\mathbf{0 . 6 2}$ | 0.37 |
| 15 | 0.17 | 0.21 | 0.12 | $\mathbf{0 . 8 4}$ |
| 16 | 0.33 | $\mathbf{0 . 5 7}$ | 0.33 | $\mathbf{0 . 0 0}$ |

At this point we collect together those statements contributing substantially to the definition of a component, and give each statement equal weighting. Strictly speaking, these new entities should not be referred to as components because a component contains some element of all statements. From this point on, these new entities will be referred to as scales. Each of the new scales, with their equally weighted defining statements and our interpretive labels, are as follows:

## Scale 1: Maleness

2 If there were more male teachers in primary schools, boys' literacy learning would improve.
3 If more adult men were involved with boys in reading and writing activities, boys' literacy learning would improve.
4 Teachers need to understand more about male culture to improve boys' literacy learning.

## Scale 2: Development and pedagogy

6 There has been a lack of focus on boys' education over the last two decades.
7 The way that boys' brains develop accounts for boys' literacy learning.
9 Boys are not ready for school at the compulsory entry age.
11 If schools adopted different assessment practices, boys’ literacy results would improve.
16 Many current teaching practices in literacy classrooms are not conducive to boys' literacy learning.

Scale 3: Literacy interests
8 There are not enough books of high-interest value to boys available in schools.
10 Boys prefer to read non-fiction to fiction.
12 Boys often think that reading and writing activities are more appropriate for girls and women.
14 Boys prefer technological forms of literacy to print-based forms of literacy.

## Scale 4: Segregation

13 If boys attended single-sex schools, their literacy learning would improve.
15 If literacy classes were segregated by gender, boys' literacy learning would improve.

The analysis so far has suggested that these statements go together in the combinations above, but not how well they go together. Reliability is a measure of how well statements go together. Earlier in this section, we noted that eigenvalues suggested that there were five components, and the fifth scale derived from the fifth component was defined by statements 1 and 5 . However, the reliability (as measured by Cronbach's $\alpha$ ) was 0.44 , well below acceptable levels. In addition, statements 1 and 5 correlated only weakly. As a consequence, the fifth scale was dropped from consideration. The reliabilities for the Maleness scale and the Development and pedagogy scale are acceptable ( 0.73 and 0.66 respectively). The reliability for the Literacy scale was borderline (0.56) but the scale was retained. The Segregation scale has two defining statements and, despite its high reliability ( 0.82 ), it is preferable to have three or more statements defining a scale to add to its statistical stability. However, two points indicate that the scale can be retained with a note of caution concerning its definition: the two statements correlate strongly with each other and are relatively uncorrelated with all other statements in the set; and the two statements have high loadings on component 4 (see Figure 4.4).

We now re-present in Figure 4.5 the mean degrees of agreement for the four Boys and Literacy scales, recalling that the higher the mean (closer to 6), the more overall agreement indicated by the respondents, and the lower the mean (closer to 1 ), the more overall disagreement indicated by the respondents.

Figure 4.5: Means and standard deviations for four 'Boys and Literacy' scales

| 'Boys and Literacy' scales | Mean | Standard deviation |
| :--- | :---: | :---: |
| Maleness | 4.12 | 1.07 |
| Development \& Pedagogy | 3.57 | 0.90 |
| Literacy Interests | 3.94 | 0.85 |
| Segregation | 3.40 | 1.22 |

The most favoured set of explanations and recommendations concerns 'Maleness', followed closely by 'Literacy interests'. The least favoured (slightly on the disagree side of the rating) concerns the educational segregation of boys and girls.

It is now possible to map the patterns of agreement on these scales using cluster analysis to group the respondents in terms of their profiles on these four scales. We follow the same procedures as outlined for cluster analysis early in this chapter. Cluster analysis shows that the movement from three to four clusters gained an additional $5.2 \%$ of variance, and the move from four to five clusters another $4.3 \%$, indicating a four-cluster solution. The standardised means for this four-cluster solution are shown in Figure 4.6.

Table 4.6: Standardised means of four clusters of respondents for 'Boys and Literacy' scales

| 'Boys and Literacy’ scales | Clusters based on respondents' ratings of the four scales |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | I | II | III | IV |
|  | ( $\mathrm{n}=116$ ) | ( $\mathrm{n}=102$ ) | ( $\mathrm{n}=126$ ) | ( $\mathrm{n}=65$ ) |
| Maleness | 0.759 | 0.513 | -0.389 | -1.405 |
| Development and pedagogy | 0.972 | -0.179 | -0.122 | -1.219 |
| Literacy interests | 0.782 | -0.219 | 0.139 | -1.322 |
| Segregation | 0.726 | -0.773 | 0.454 | -0.964 |

Our interpretation of these four clusters of respondents is as follows:

- Cluster I: This cluster of respondents scores well above the overall mean for all four scales. That is, they agree with all sets of explanations and recommendations.
- Cluster IV: This cluster of respondents scores well below the overall mean for all four scales. That is, they disagree with all sets of explanations and recommendations.
- Clusters II and III score at about the overall mean on the 'Development and pedagogy' scale and the 'Literacy interests' scale. What separates clusters II and III is their responses to the 'Maleness' scale and the 'Segregation' scale.
- Cluster II: This cluster of respondents scores higher than the overall mean on the 'Maleness' scale, and lower than the overall mean on the 'Segregation' scale. That is, they agree with the 'Maleness' issues, but disagree with the educational segregation of boys and girls.
- Cluster III: This cluster of respondents scores slightly higher than the overall mean on the 'Segregation' scale. That is, they approve of the educational segregation of boys and girls.

This analysis allows an empirical basis for grouping the respondents in terms of the patterns shown in their views of 'Boys and Literacy'. We explored the composition of these 'Boys and Literacy' clusters in terms of the information given to us in the 'background' sections of the survey. For instance, we found that membership in these 'Boys and Literacy' clusters is associated with the teacher's gender ( $\chi^{2}(3)=22.99, \mathrm{p}$ $<0.01$ ), as shown in Table 4.7. This table shows the number of respondents who fell
into each cell. For instance, of the 133 respondents who belong to Cluster I, 48 are male and 65 are female. The bolded cells are those cells making a statistically significant ( $\mathrm{p}<0.05$ ) contribution to the overall statistically significant $\chi^{2}$. The arrows indicate whether the entry is greater than $(\uparrow)$ or less than $(\downarrow)$ what would be expected from a random distribution of respondents to the cells (that is, from chance).

Table 4.7: Cross-tabulation of gender and membership in 'Boys and Literacy' clusters

| 'Boys and Literacy' clusters | Gender of teacher |  |  |
| :--- | :--- | :--- | :--- |
|  | Male | Female | Total |
| I Agree with all explanations | $\mathbf{4 8 \uparrow}$ | $65 \downarrow$ | 113 |
| II Agree with 'Maleness' explanations, but not 'Segregation' | 35 | 66 | 101 |
| III Favour 'Segregation' | $\mathbf{2 2} \downarrow$ | $\mathbf{1 0 1 \uparrow}$ | 123 |
| IV Disagree with all explanations | 11 | 52 | 63 |
| Total | 116 | 284 | 400 |

In Cluster I (the cluster agreeing with all explanations), we find more males and fewer females than expected from a random distribution, while in Cluster III (the cluster favouring segregation but not maleness explanations), we find more females and fewer males than expected. The trend here is for male teachers to endorse all explanations, including segregation when it is in combination with other explanations, but not to endorse segregation in isolation from other explanations. Similarly, female teachers were more likely to endorse segregation, but not when it is combined with other explanations.

There were no statistically reliable associations between 'Boys and Literacy' clusters and the SES rating of the school, or with the rural/urban indicator of the school ( p > 0.5 ); nor was there a statistically reliable association between 'Boys and Literacy' clusters and the clusters of classroom characteristics established in Figure 4.1 (p> 0.05 ). There was, however, a statistically reliable association between the 'Boys and Literacy' clusters and the clusters of community characteristics established in Figure $4.2\left(\chi^{2}(16)=22.0, p<.05\right)$. Figure 4.8 shows the direction of the association.

Figure 4.8: Cross-tabulation of membership in community clusters and membership in 'Boys and Literacy' clusters

| Community clusters | 'Boys and Literacy' clusters |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | I <br> Agree with all explanations | II <br> Agree with 'Maleness' but not 'Segregation' | III <br> Agree with 'Segregation' | IV Disagree with all explanations | Total |
| Below-average proportions of all groups | 44 | 42 | 43 | 14 $\downarrow$ | 143 |
| Above-average proportions of LBOTE, low SES | 5ฟ | 7 | 15 | 10ヶ | 37 |
| Above-average proportions of people with disabilities | 19 | 12 | 16 | 12 | 59 |
| Above-average proportions of Indigenous and low SES | 22 | 22 | 18 | 5 | 67 |
| Above-average proportions of all groups | 5 | 4 | 7 | 6 | 22 |
| Total | 95 | 87 | 99 | 47 | 328 |

Small cell sizes indicate the need for caution in interpretation. Also, none of the cells reaches statistical significance, and therefore our interpretation focuses on the cells trending towards significance. A first observation from Figure 4.8 is that respondents working in communities with higher than average proportions of LBOTE and lowSES people are more likely than chance to belong to a 'Boys and Literacy' cluster that disagrees with all explanations, and less likely than chance to belong to the 'Boys and

Literacy' cluster that endorses all explanations. The likely explanation is that teachers working in communities with high proportions of people from language backgrounds other than English see literacy problems arising out of the language background of the community, and as a consequence are less likely to endorse one of the explanations or recommendations we offered.

A second observation from Figure 4.8 is that respondents working in communities with small proportions of all groups are less likely than chance to belong to a 'Boys and Literacy' cluster that disagrees with all explanations. In all likelihood, they do endorse explanations concerned with 'Maleness', 'Development and pedagogy' and 'Literacy interests', but they are evenly spread across these groups, and so the corresponding cells in Figure 4.8 do not reach statistical significance.

In conclusion, we find an association between teachers' gender and whether or not they endorse explanations and recommendations concerning 'Boys and Literacy'. We do not find a straightforward association linking socio-economic status with teachers' endorsements of explanations and recommendations concerning 'Boys and Literacy'. The one socio-economic relationship we did find was associated with teachers' disagreement with explanations and recommendations. Furthermore, teachers' endorsements of recommendations and explanations are not related to their classroom characteristics; they are related only to the characteristics of their schools' surrounding communities.

## Responses to open-ended questions

Section 3 of the survey allowed for respondents to provide open-ended comments on the key issues concerning the possible sources of boys' difficulties in literacy learning and what may be done about that. For both questions, we categorise the responses and provide examples of the teachers' responses, along with a count of the number of responses that fell into each category. Although some respondents gave more than one explanation, for the purpose of the count, we have chosen the accounts given most prominence in each teacher's comments. Following the examples, we investigate relationships between teachers' comments and teachers' membership in other categories established earlier in the chapter.

Question 1: Could you comment on whether particular boys and girls appear to struggle with the literacy requirements of schools? Do they appear to come from particular backgrounds or have particular characteristics? Please specify.

A total of 302 teachers gave some elaboration in their responses to this question. After a first pass through the comments, we found 16 categories of response. Figure 4.9 shows our labels for these categories and examples of comments to show some of the various ways in which the main ideas we used to categorise the comments were inflected in the teachers' own words.

Figure 4.9: Respondents' comments concerning backgrounds and characteristics of students who struggle with the literacy requirements of schools

Categories
Home environment
( $\mathrm{n}=123$ )

## Inflections:

Learning /education/literacy not valued

Pre-literacy skills not taught
Single-parent families
Literacy not modelled Backgrounds where there is poor or non-existent modelling of literacy as a habit or a pleasurable activity struggle with literacy at school.

Girls and boys who struggle with literacy usually have parents who struggle with literacy. At home reading and writing are not a part of the normal day.

| Low SES $(n=46)$ | Many students at our school struggle with literacy because it is all so hard for them. They come from low socio-economic homes where there are few books and newspapers. |
| :---: | :---: |
| Inflections: |  |
| Few materials | Boys from socio-economic low-level homes seem to have difficulty for many reasons, for example, lack of modelling reading and writing at home; usage of oral language |
| Modelling | at home, etc. |
| Oral language | Currently in my class I have four children (boys) who are struggling to develop literacy skills, two of which come from a financially disadvantaged background. They |
| 'loved, but | are all loved and valued members of their families. |
| $\begin{aligned} & \text { NESB/ESL } \\ & (\mathrm{n}=17) \end{aligned}$ | Yes particular groups are struggling with literacy demands of the classroom. Primarily the NESB group who need clear and well-sequenced instructions and opportunity to clarify by asking questions. |
| Inflections: |  |
| Explication | Many students from NESB have difficulties especially if they are not literate in their first language. |
| Literate in L1? |  |
|  | ESL background suffer. |
| Behavioural/emotional problems |  |
| ( $\mathrm{n}=11$ ) | As a reading recovery teacher, most children I take on the program are boys who are behaviour problems in the classroom. |
| Inflection: |  |
| Unresponsive to 'discipline' programs | Of all the children receiving support, in excess of 75 per cent would be boys. They are from a mixed background. 75 per cent of them exhibit behaviour problems (attending, wandering the room, talking inappropriately) and do not respond to 'discipline' programs. |
| Lack of concentration/attention ( $\mathrm{n}=10$ ) | Boys struggle more because it requires concentrated, quiet effort. On the whole boys are active learners, rather than quiet learners. |
| Inflections: | Boys who have shorter concentration spans or who are highly active do not generally do as well at reading tasks. |
| Active not quiet |  |
| Concentration span | Children who have short attention spans appear to struggle with literacy. |
| Indigenous issues $(\mathrm{n}=10)$ | Indigenous children have a non-literature-based background and therefore do not experience the immersion that other children may get from home and family life. Materials are unavailable and not an important part of their daily life. |
| Inflections: |  |
| Non-literate cultural background | Indigenous kids seem to be over-represented at the bottom level of reading groups. In particular Indigenous students struggle with literacy requirements. A high percentage of our Aboriginal students do not have exposure to books before they begin school. |


| Maturity/developmental issues $(\mathrm{n}=10)$ | I think that the immaturity of many boys when they start school is an important factor. Yes, definitely. I feel the whole 'general' make-up of how boys differ to girls has a strong influence on the way they think, learn and develop academic skills - speaking here of literacy development. |
| :---: | :---: |
| Inflections: <br> Boys' immaturity at start of school | Many boys take longer to establish the necessary building blocks of language. This adds to the difficulty of coping with the demands of class activities, they get discouraged and give up. The ways boys learn is different to girls. |
| The general 'make-up' of boys Different learning styles |  |
| Culture/ethnicity $(\mathrm{n}=9)$ | Both boys and girls from other cultures ... who have missed out on the basic oral sentence structures and vocabulary at home often find comprehension difficult. |
| Inflections: <br> Missing oral language | In this school boys from a particular ethnic background struggle. Too often they come to school with minimum levels of discipline and find school life a struggle. |
| Missing 'discipline' |  |
| Sport/physical/outside interests $(\mathrm{n}=9)$ | The boys in our school who struggle with literacy tend to come from a wide range of backgrounds. The only common feature is that they tend to want to spend more time outside playing etc than reading. They are more 'hands-on' than other boys. |
| Inflections: <br> Boys are more 'hands-on' | I find many boys who are 'rough and tumble hands-on boys' struggle. |
| No interest in print-literacy activities | Some boys and girls are either not ready or really interested in reading. They would prefer to be playing sport, being with friends, engaged in visual media activities. |
| Language/learning difficulties ( $\mathrm{n}=5$ ) | Most boys and girls who struggle, and this is not gender-specific, seem to have a genetic predisposition towards learning disabilities/difficulties. Most children I work with have one or more parents with a similar disability. |
| Inflections: |  |
| Auditory problems | There are some particular boys and girls who are struggling with literacy due to auditory and short-term memory retrieval problems. |
| Short-term memory problems |  |
| Farming/rural $(\mathrm{n}=4)$ | Often boys from rural families, where out-of-school activities are outdoor-focused, struggle with concentration and interest in literacy activities at school. |
| Inflections: <br> Outdoor focus <br> Gendered work | Boys who come from 'traditional' farming households, mother cooks/cleans, father works outside; seem not to have had a literate background prior to starting school. These boys are often 'Dad's helper", whereas the girls in these areas are nurtured more. |
| Transient/itinerant $(\mathrm{n}=4)$ | One group tends to be itinerant and of low socio-economic background. |
| inflections: <br> Often refuse help |  |
| Oral language development $(\mathrm{n}=3)$ <br> Inflection: | The children I find who have difficulty are not actively involved in oral work for example, answering questions, giving their opinions, etc. Also their parents don't give them the support they need, for example, readers changed regularly, sight words practised, library book. |
| language development | Low levels of oral language. Lack of exposure to stories and rhyme. Less opportunity to discuss issues with interested adults. |
| Fine motor skills $(\mathrm{n}=1)$ | I believe a factor in boys' learning difficulties stem from their imbalance in fine and gross motor development. I see a common characteristic of problems in fine motor skills impacting hugely on their ability to access the curriculum. |


| Mismatch with schooling <br> $(\mathrm{n}=10)$ | Some students (like some adults) learn aurally. These students are often expected to <br> adhere to a different style of learning that is not advantageous for them. I have <br> observed this more so with boys than girls. |
| :--- | :--- |
| Inflections: | Some schools don't cater for all the individual differences of students through no fault <br> Boys more aural learners <br> of their own; but through time constraints, voercrowded curriculum, interruptions and <br> a myriad of other pressures on a teacher's time. |
| Individual differences | I am not convinced that there are specific groups that suffer from low literacy. <br> Statistics tell us that boys in general - no matter where they are located - are <br> comparatively underperforming in the area of literacy. |
| No particular characteristic <br> ( $\mathrm{n}=30$ ) | Some boys and girls struggle with literacy requirements of schools. They do not <br> appear to come from particular backgrounds or have particular characteristics. It <br> seems to depend on the teacher using appropriate strategies to suit individual <br> students. |

A number of key issues can be highlighted here: most prominent is the role of the home background in preparing students for learning literacy and for school more generally (for example, students' responsiveness), and for sustaining young learners' literacy development. Some teachers also noted that boys tended to be more physically active than are girls, to have less developed oral language skills, to be less mature in the early school years, to be more oriented to 'hands-on' activities, and to be more likely to experience specific literacy-related problems, such as in auditory processing, vocabulary development and short-term memory and concentration span, than are girls.

As some of the categories in Figure 4.9 seem to deal with similar issues, they can be combined into the following seven general categories as shown below:

The backgrounds and characteristics of children struggling with literacy requirements of school are related to:

- Home environment (combining Home environment, Farming/rural, Oral language development);
- Low SES (combining Low SES, Transient/itinerant, Indigenous issues);
- NESB/ESL issues (combining NESB/ESL, Culture/ethnicity);
- Student deficits (combining Behaviour/emotional problems, Language/learning difficulties, Fine motor skills);
- Desire for activity (combining Lack of concentration/attention, Maturity/development issues, Sport/physical/outdoor interests);
- Mismatch with schooling (unchanged);
- No particular characteristic (unchanged).

Figure 4.10 shows the number and percentage of respondents endorsing these backgrounds or characteristics as attributable to children who struggle with the literacy requirements of school.

Figure 4.10: Number and percentage of teachers endorsing response categories

| Background/characteristic | Number | $\%$ |
| :--- | :---: | :---: |
| Home environment | 130 | 43.0 |
| Low SES | 60 | 19.9 |
| Desire for activity | 29 | 9.6 |
| NESB/ESL | 26 | 8.6 |
| Student deficits (behaviour, emotional, learning difficulties) | 17 | 5.6 |
| Mismatch with schooling | 10 | 3.3 |
| No particular characteristic | 30 | 9.9 |
| Total | 302 | 100 |

Almost half the teachers drew attention to an aspect of the home backgrounds of the children they teach, and more than one-quarter of teachers commented on socioeconomic disadvantage and language backgrounds of their students. General comments concerning the differing maturational levels of boys and some physiological and psychological correlates of that, in particular, boys preference for physical, hands-on activities, also featured prominently.

We explored the associations between the category of teachers' comments and other features relating to them, namely gender, teaching experience, qualifications, membership in 'Boys and Literacy' clusters (established in Figure 4.6), and their school's location with respect to SES and rural/urban indicators. With respect to the last variable (school location), we used a simplified form of the postcode-related categories assigning rurality and SES indicators to create a new four-category variable (SES-rural indicator): rural, not low SES; urban, not low SES; urban, low SES; rural, low SES.

There is an association between the characteristics and backgrounds assigned to children struggling with literacy requirements and teacher's gender $\left(\chi^{2}(6)=15.62, \mathrm{p}=\right.$ 0.016), as shown in Figure 4.11. Accounts based on home environment predominated, but male teachers were more likely than chance to draw attention to the students' and communities' socio-economic status and to the mismatches between school and home life.

Figure 4.11: Cross-tabulation between characteristics and backgrounds attributed to lowachieving students and teacher's gender

| Characteristics of low-achieving students | Teacher's gender |  |  |
| :--- | :---: | :---: | :---: |
|  | Male | Female | Total |
| Low SES | 29 | 99 | 128 |
| Desire for activity | $\mathbf{2 4 \uparrow}$ | $33 \downarrow$ | 57 |
| NESB/ESL | 4 | 24 | 28 |
| Student deficits (behaviour, emotional, learning difficulties) | 9 | 17 | 26 |
| Mismatch with schooling | 4 | 13 | 17 |
| No particular characteristic | $6 \uparrow$ | $4 \downarrow$ | 10 |
| Total | 8 | 21 | 29 |

There is an association between the characteristics assigned to low-achieving students and SES-rural indicator $\left(\chi^{2} 18\right)=29.90, \mathrm{p}<0.05$ ), as shown in Figure 4.12. Teachers working in rural, middle- and high-SES environments are more likely than expected to point to home environment issues as the sources of literacy difficulties; urban, middle- and high-SES environments are more likely than expected to be associated with comments based on first-language status, an account never offered by teachers working in rural, low-SES settings.

Figure 4.12: Cross-tabulation between characteristics and backgrounds attributed to lowachieving students and school's location with respect to SES-rural indicator

| Characteristics of low-achieving | SES and rural/urban indicator |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
|  | Rural, not low | Urban, not | Urban, low | Rural, low | Total |  |  |  |
| Home environment | SES | low SES | SES | SES |  |  |  |  |
| Low SES | $33 \uparrow$ | 52 | 12 | 30 | 127 |  |  |  |
| Desire for activity | 13 | $19 \downarrow$ | 6 | 18 | 56 |  |  |  |
| NESB/ESL | 4 | 14 | 3 | 7 | 28 |  |  |  |
| Student deficits | $1 \downarrow$ | $21 \uparrow$ | 2 | $0 \downarrow$ | 24 |  |  |  |
| Mismatch with schooling | 4 | 6 | 2 | 3 | 15 |  |  |  |
| No particular characteristic | 1 | 5 | 1 | 3 | 10 |  |  |  |
| Total | 2 | 16 | 2 | 8 | 28 |  |  |  |

There is also a significant association between the characteristics assigned to low achieving students and length of teaching experience $\left(\chi^{2}(6)=18.29, p<.01\right)$ as shown in Figure 4.13. Highly experienced teachers tended to favour accounts based on students' home backgrounds more than expected, and to favour accounts based on first-language concerns less than did their less experienced colleagues.

Figure 4.13: Cross-tabulation between characteristics and backgrounds attributed to lowachieving students and length of teaching experience

| Characteristics of low-achieving students | Years of teaching |  |  |
| :--- | :---: | :---: | :---: |
|  | $>\mathbf{1 0} \mathbf{y r s}$ | Total |  |
| Home environment | $\mathbf{2 1} \downarrow$ | $\mathbf{1 0 8 \uparrow}$ | 129 |
| Low SES | 15 | 41 | 56 |
| Desire for activity | 6 | 21 | 27 |
| NESB/ESL | $\mathbf{1 3 \uparrow}$ | $\mathbf{1 3} \downarrow$ | 26 |
| Student deficits (behaviour, emotional, learning difficulties) | 4 | 13 | 17 |
| Mismatch with schooling | 0 | 9 | 9 |
| No particular characteristic | 9 | 19 | 28 |
| Total | 68 | 224 | 292 |

There were no statistically significant associations found between backgrounds and characteristics assigned to low-achieving students and membership of the 'Boys and Literacy' clusters established in Figure 4.6 ( $p>0.5$ ), or with teachers' qualifications ( $\mathrm{p}>0.1$ ).

Question 2: Do some boys and girls have particular literacy difficulties that make it hard for them to meet school literacy requirements? Please elaborate on the type of difficulty these students experience.

After a first pass through the teachers' comments, there were 12 categories of response evident in the 250 answers to this question. Again, where teachers gave a list, we took the first element in their list. Figure 4.14 gives examples of teachers’ responses.

Figure 4.14: Respondents' comments concerning particular literacy difficulties of some students

Categories of literacy
difficulty
Deficits in home environment ( $\mathrm{n}=47$ )

## Inflections:

Oral language prior to school
Parents helping with reading program

General common cultural experiences

## Learning difficulty

 ( $\mathrm{n}=36$ )
## Inflections:

Variety of important
difficulties
Need for specific interventions

Some examples of comments
Boys and girls who have not had much pre-pre-school verbal interactions. (e.g. songs/nursery rhymes)

The children whose parents do not actively support the School Literacy Program through a Home Reading Program or as Classroom Tutors appear to experience difficulties. Support from home is essential!

Many literacy requirements are based on supposed common experiences in life and language. Children with minimal exposure to a variety of experiences (family outings, holidays, meeting other adults and children) have trouble understanding/reading.

Children with special needs e.g. ADD, dyslexia, or slow learners i.e. boys whose reading age falls two years below their chronological age, tend to require behaviour modification strategies to be in place before learning can be encouraged.
$A D D$ and $A D H D$; processing problems; speech and language disabilities.
Learning disabilities, for example, dyslexia, colour blindness. MANY of them don't have their eyes checked by an optometrist and need glasses.

Hearing impairments (slight but significant enough).
Sight impairment that hasn't previously been detected.
Speech impairment leads to difficulty in phonetics.
Poor long- and short-term memory.
Deficits in the school ( $\mathrm{n}=31$ )

## Inflections:

Boys generally 'behind'
Subject to criticism
Schools value only a particular sub-set of experiences

Class sizes
Materials
Not enough support facilities
Not catering to learning styles

Mismatch between home/community and school literacy requirements

The specific 'literacies' of school

I do not believe that the problem is focused on the acquisition of literacy skills - rather I think the problem stems from early school experience where, developmentally, boys are behind and are labelled as 'support'.

Boys who have not mastered reading or whose writing has been constantly criticised for its untidiness are often reluctant to read and write.

The interests and lives of some children are not valued by some teachers. This means the child can feel like a failure early in their schooling. With large class numbers it is difficult to provide some children with the extra time needed to hear them read.

Some students find difficulty with reading of text. Finding enough books of interest to the individual reader will always be a problem in isolated areas.

If there are difficulties with literacy development, there are not enough support facilities available to schools firstly to diagnose the exact problem, then have the strategies (and personnel ) to implement them.

There is a difference in students' learning styles which are not being catered for. How school has particular cultural factors which place major challenges on literacy development. School literacy for them is a foreign world. While street literacy and the ability to survive in the world are their regular operating environments.

A mismatch between community literacies and school literacies. Add to this a range of cultural literacy practices in the home and then the form of assessment which is exclusionary - no wonder we SEEM to have literacy problems.

Inadequate oral
language/vocabulary
development
( $\mathrm{n}=29$ )

## Inflections:

Background experiences not shared

Limited language experiences

Need for pre-school

The depth of background knowledge and experiences is having most problem on reading outcomes, i.e. not knowing what a saucer or a radish is.

Having an adequate oral background i.e. the kind of communication is not a conversational type - usually commands, IRE type. Their experience of the world around them is fairly limited in that there is the oral component lacking.

Often their oral language isn't well developed as their parents are uneducated and speak 'poorly'. This reflects in their reading and writing. Children are behind the 8 ball for a start and never catch up.

Poor oral language and vocabulary put some children at a disadvantage as soon as they arrive at school. Those who have not been to pre-school can have missed lots of experiences.

| Lack of concentration/ <br> behaviour problems <br> $(\mathrm{n}=24)$ | Concentration is limited so they find it hard to sit for long at a particular task especially if <br> it does not interest them |
| :--- | :--- |
| Inflections: <br> Sitting still for literacy <br> learning | Because of their poor concentration, they need to be sat in a particular way (not looking <br> at other children). Lack of desks and space means I can't do this. |
| Disruptions to class learning | Some individuals (usually males) have trouble concentrating on a task for a length of <br> time - any task but even more so if task is quiet, sitting still, listening, reading, writing. <br> Usually the children with behaviour/disruptive behaviours and as time is spent <br> addressing these issues, little time is actually spent in productive learning. |
| Specific writing skill <br> (n = 18) | In the younger grades at primary school, I have noticed that students (both boys and <br> girls) have trouble with constructing sentences properly. When they have to re-read their <br> work and edit their mistakes they really can't do this and can't see the mistakes. |
| Inflections: <br> Spelling | Yes, for example, chat room standards of expression, grammar, punctuation are <br> acceptable to them but not in school. |
| Grammar | Difficulties with grammar; taking risks in writing; varying sentence structure; using <br> descriptive words; poor spelling. |
| Sentence structure |  |

Editing
Handwriting

| Specific reading skill <br> $(\mathrm{n}=18)$ | Learning to scan-read, that is not word by word, is one of the most important skills and <br> yet one that does not seem to be investigated by the experts. This causes children to |
| :--- | :--- |
| give up on a story before they can become involved in the text. |  |
| Inflections: | Some difficulties are reversals of letters, words, tracking along a line. All seem to have <br> decoding |
| difficulty with immediate recognition of basic sight vocab. Coding skills are also weak |  |
| and all of the above slow down the reading process. |  |

Phonological awareness Little or no phonological awareness e.g. understanding of rhyme or rhythm via nursery ( $\mathrm{n}=17$ ) rhymes etc.

Having worked mostly in lower school, students who haven't grasped the basics of letter/sound (metalinguistics) identification in first two years of school experience difficulties all the way through their schooling life.

Early childhood - have difficulty in developing the basics of letter-sound relationships, phonic skills of sounding out - rhyme, syllables.

| Work ethic $(\mathrm{n}=11)$ | The main literacy difficulties I have seen stems back to low self-esteem. They lack the confidence to even give it a go and they require constant support for all areas in literacy. |
| :---: | :---: |
| Inflections: Self-esteem | Some students have genuine difficulties but many others are not prepared to work hard to gain results. Others avoid situations where high literacy skills are required. |
| Confidence Motivation | Mainly it is a motivational problem - the curriculum seems irrelevant to their current needs. I only want to play soccer. It's all too hard. Many seem to give up too easily. They don't see the need to practise the skills of reading and writing. |
| Comprehending the literacy task $(n=11)$ <br> Inflections: <br> Literacy as a complex set of tasks | Lack of grounding in the purpose of reading/writing, therefore the reason for attempting such a difficult task is not apparent. <br> Children sometimes have a good foundation but cannot put together the literacy 'puzzle' pieces. Mental pathways need training to achieve success with literacy tasks. |
| Gaps in schooling ( $\mathrm{n}=6$ ) <br> Inflections: <br> Family dysfunction <br> Transience | Usually large gaps in literacy and education because of learning disability, behaviour, social/emotional problems often relating to family dysfunction. Many have missed the basics. <br> Transient students, ill students or students with behaviour difficulties appear to have large gaps or chunks missing from their education. These students begin to develop a learnt hopelessness, labelling themselves, developing bad attitudes. |
| Desire for handson/doing/physical activities $(\mathrm{n}=2)$ <br> Inflection: <br> The peer group is 'antiliteracy' | Boys are too busy being 'one of the gang' and appearing macho to worry about literacy. Peer pressure is harder for boys. Boys are not encouraged to see literacy as 'cool'. <br> Boys find it difficult to balance their time with the expectations of the peer group. Lunch times are sporting times rather than library times whereas girls will spend time in the library without a hesitation. |

In aiming to specify the factors they took to be significant in literacy learning and development, these teachers focused on a range of potential difficulties, many of which were, again, attributed to pre- and out-of-school experiences. Teachers pointed to the cultural, linguistic and literacy features of homes, and the lack of attention paid to these by some parents. Some also emphasised the specific nature of learning and literacy use in schools compared to out-of-school settings, and some focused on antiliteracy pressures on boys from the media and peer groups. Teachers also listed specific components of literacy such as 'the basics' of phonemic awareness, spelling, grammar, and comprehension. Of some interest is the emphasis placed by some on issues concerning self-esteem, a history of criticism over apparently minor details or tidiness, and general motivation and work ethic. Almost all of these issues are picked up in various ways in the sections that follow, but it is notable that these factors formed a significant part of the goals that teachers pursued in the interventions of Phase 2 of the study (see Chapter 6).

Again, the categories of Figure 4.14 can be combined into the following general categories:

Students' particular literacy difficulties are related to:

- Deficits in the home environment (unchanged)
- Learning difficulty (unchanged)
- Specific literacy skills (combining Specific writing skill, Specific reading skill, Phonological awareness)
- Deficits in the school (combining Deficits in the school, Gaps in schooling)
- Deficits in child's psychological/social make-up (combining Inadequate oral language/vocabulary development, Lack of concentration/behaviour problems, Work ethic, Comprehending the literacy task, Desire for hands-on/doing/physical activities).

Figure 4.15 shows the number and percentage of respondents endorsing each category as a primary sources of difficulty for some students.

Figure 4.15: Number and percentage of teachers endorsing response categories

| Source of literacy difficulty | Number | $\%$ |
| :--- | :---: | :---: |
| Deficits in child's psychological / social makeup | 77 | 30.8 |
| Specific literacy skill | 53 | 21.2 |
| Deficits in home environment | 47 | 18.8 |
| Deficits in the school | 37 | 14.8 |
| Learning difficulty | 36 | 14.4 |
| Total | 250 | 100 |

As before, we find that these teachers place considerable explanatory power in the home environment of the students they teach. However, in this reduced table, we find that the largest groups of teachers attribute literacy difficulties to deficits in the child's psychological or social make-up, that group of categories that deal with behavioural and emotional problems, lack of maturity, low concentration span, and a desire for physical, active, hands-on work. The second largest group, accounting for about one in five teachers, attributes students' literacy difficulties to highly specific problems to do with literacy learning.

When we consider which kinds of teachers nominated these various explanations, we find no statistically significant associations between the simplified forms of these accounts and gender, 'Boys and Literacy' clusters established in Figure 4.6, the SESrural indicator, and the professional qualifications of the teacher (all p's $>0.1$ ). There is, however, an association between the kind of explanation given and teaching experience $\left(\chi^{2}(4)=13.19, p=0.01\right)$, as shown in Figure 4.16. More experienced teachers tended to emphasise the features of individual children, rather than deficits or problems with specific literacy skills or more general problems to do with learning difficulties.

Figure 4.16: Cross-tabulation between teaching experience and explanations for students' literacy difficulties

| Source of literacy difficulties | Years of teaching |  |  |
| :--- | :---: | :---: | :---: |
| Deficits in child's psychological / social makeup | $\mathbf{0 - 1 0} \mathbf{~ y r s}$ | $\mathbf{> 1 0} \mathbf{y r s}$ | Total |
| Specific literacy skill | $\mathbf{1 0 \downarrow}$ | $\mathbf{6 6 \uparrow}$ | 76 |
| Deficits in home environment | $\mathbf{1 7 \uparrow}$ | $\mathbf{3 2} \downarrow$ | 49 |
| Deficits in the school | 7 | 40 | 47 |
| Learning difficulty | 6 | 29 | 35 |
| Total | $\mathbf{1 2 \uparrow}$ | $\mathbf{2 3} \downarrow$ | 35 |

## THE PARENTS' SURVEY

About 300 parents responded to the survey sent out via the schools as part of this project. Essentially, we were interested in parents' responses to three questions. Below is a brief summary of the parents' views on each, along with a selection of
direct quotes from the parents to show the various inflections under each category of response.

Question 1: Do you think boys have more difficulty with reading and writing than girls? If so, why?

While some parents did not directly answer this question, the overall pattern of responses was that $65 \%$ (154) of parents agreed that boys did indeed have more literacy difficulties, and $14 \%$ indicated that some boys seem to. There was no statistically significant relationship between the response to this question and the gender of the parent's child or the year level of the student.

Of the parents who agreed with the statement, the most common explanation (56) for the gender difference given by the parents was a lack of concentration or attention among boys, for example:

Yes. Because boys have a shorter concentration span than girls.

Yes. They appear to have a shorter attention span.
Yes, they seem more easily distracted and appear to have a limited concentration span.

I think boys' concentration spans are better when activity (physical) is involved and the school system would have difficulty with this ...

The next most frequent account (52) related to boys' preference for physical, outdoor, sporting activities, as in:

Boys I think are more interested in running around and playing games. Reading and writing doesn't have any importance to them ...

Yes it would appear so. Perhaps because boys of pre-school age would prefer to be outdoors thus developing gross motor skills but neglecting fine motor skills, and early reading skills as 'reading' books, drawing, puzzles. Boys are very active at this age and find long periods of sitting still tedious.

I think on the whole boys are much 'too busy' and interested in play, than concentrating on their writing.

As boys do more outdoor activities, and girls do more indoor activities such as reading, chatting etc.

Yes, because of their nature of being boisterous, they are more interested in playing and sport rather than spend their energy in reading. They are not less capable rather they are less motivated and interested.

I think it's because when they are younger the boys only seem interested in outdoor activities, where the girls are quite content to sit down with a book or puzzle.

Some parents (16) also referred to the relevance and gender-appropriateness of reading materials:

Yes I do think boys have more difficulty than girls because they're not interested in reading. My boys only seem to enjoy books on either farm machinery, truck, backhoes, heavy equipment.

Yes. I do think boys have more difficulty with reading and writing because a lot of books don't interest them unless it's about sports and cars.

Yes. Because there are so few books that appeal to boys, even the 'taming down' of old fairytales to remove violence has the effect of feminising the text and making it of less interest to boys.

Books that interest boys are more difficult to find - especially for emergent readers. Boys are often looking for interesting characters not cute cuddly animals
... There may be content bias in books. We have had a great deal of trouble finding books that our son in interested in combat/adventure.

Other parents (13) drew attention to boys' differing rates of maturing:
Boys develop later than girls and I think this is also evident in the development of their reading and writing skills. Girls, I feel, also tend to be more ready for learning earlier and from my experience are generally more creative with their writing skills.

I have two boys, neither enjoyed reading and writing at primary school although they did well at secondary school. Perhaps it is an immaturity problem.

Other minority views concerned:

- Girls' interest in relationships, for example:

Communication system between boys and girls is different. Mateship is a highly rated source of information for boys. Girls are generally more expressive - writing.

- The unfashionability of reading for boys, for example:

Usually mums read to them and think it is a female thing. Mums help with homework.

Reading and writing is not seen as the 'in thing' and is not readily accepted by peers.

When they get older (i.e. later primary age) it is not regarded by peers as 'cool' for boys to read.

- Differing levels of motivation to read, for example:

I think they have less incentive to read. They tend to be more physical than girls, and therefore prefer to do things rather than sit and read. My son's incentive to read when he was younger was he had to read to play the computer as he has to read the instructions.

- A lack of development of fine motor skills in boys, for example: Yes I do. With my two boys growing up, they were interested in boy games and not so much in reading and colouring in. I think it may have something to do with their fine motor skills developing later than girls.
- The prevalent usage of video/TV/computers/computer games, for example:

They watch too much TV and too many video games.
Yes. Not sure of exact reason but as mother of three girls and two boys I have noticed that girls seem to have a genuine love of reading - always have a book on hand. Both boys and girls have had same exposure to books, but the boys are more interested in physical activities or computer/television related leisure.

- The importance of male role-models, for example:

Male role-models not seen to read as much, and then it may only be newspapers, magazines, etc. Dads often have less time to sit down with sons than mums

Reading and writing are not often modelled positively as 'male’ pursuits.

- A variety of biological or physiological causes, for example: Yes. Boys generally more inclined to choose physical activities than quiet reading. This is biological at an early age as their denser muscles need more oxygen.

If the response to the first part of the question was 'no', there was again a variety of explanations among the parents who responded: some claimed that there was no difference, or that boys and girls experienced the same difficulty; some claimed that from observing sons and daughters in their families, or other people's children, or children at school, that boys perform better than girls, and one made a general claim:

No I don't. Every child is different. There are a lot of girls who can't read or write as well.

Question 2: What are some things you do to help your child's reading and writing?

We received no response from three of the 294 respondents to this question, and 10 indicated that they did not do much due to other commitments. Out of the remaining 281 responses, we were able to collect 10 main categories of response, but a number of parents provided more than one kind of answer to the question. Figure 4.17 provides examples of parents' comments under each category. The number of responses in each category is the total number, and so they will add to more than 281. The categories of response are listed in descending order of frequency.

Figure 4.17: What parents do to help their children's literacy development

Categories
Reading activity
( $\mathrm{n}=163$ )
Extending the child's reading experience

Immersion in books and reading
Beyond the basics
Attaching the child to books

Some examples of comments
I read to him every night. I also get him to read to me. Probably once a week I read complicated books to him such as Kidnapped, The Prince and the
Pauper, The Magician's Nephew, even though he is not up to reading these books for himself.

My children, one male and one female, are surrounded by books, they have been read to, listened to when reading all their lives. Both read and write equally well with reading age achievement.

Put time aside as reading time each day. Continue to read aloud to them well after they can read independently.

From a young age we have always read books to the children - and once old enough, listened to them both read. We encourage them to buy new books and lending from the library.

| Encouragement of reading $(\mathrm{n}=86)$ | Encouragement. Setting an example. I have always done a great deal of reading. Consequently there are a great deal of books in the house - to appeal to all tastes. |
| :---: | :---: |
| Modelling and offering breadth of materials | $J$ - has had books since she was a baby, and I have always had books in the house i.e. show by example, |
| Opportunities to read |  |
| Practice | We have always read to him and encouraged reading and writing. He is now very competent and I do little to assist other than provide opportunities to read, and buy him many books. |
| A culture of reading |  |
| Encouragement of reading | From the time both our children (boy and girl) were very young, we always read to them. Now that they are older, we encourage reading (although this encouragement is not really required!). We are a family of readers, which also sets a good example. I believe both my children are clever at writing because of the extensive reading they have done. |
|  | Read to our children from about one year till school entry, twice a day, one story each. Very important factor was my husband reading to the children at night -a very positive role-model. |
|  | We encourage our children to read. We are always purchasing books and we have an extensive library. |
| Writing activity $(\mathrm{n}=48)$ <br> Encouragement of writing | I have read to my children every night since they were young and I always get them to write on any birthday cards etc and also to draw on them that we are giving to family and friends. I also displayed their art work on the walls of the playroom. |
| Everyday, non-school writing | Promote writing and drawing activities whilst playing at home - shopping games, labelling items themselves. |
|  | We encourage her to write whatever she will, notes, letters, birthday lists, Christmas lists, phone number, anything to keep her with a pencil in her hand. |
|  | Encourage her to write a diary and letters to friends. |
|  | Pencils etc have always been available for scribble from the moment they could hold one. |
|  | Write letters to their friends and father to encourage them to be creative as possible. |



| Homework <br> $(\mathrm{n}=8)$ | I give help with homework, listen to them read and just help out when I can and <br> when they want help. If I can not get them to do their homework I send a note to <br> the teacher to see if they can help in the situation. |
| :--- | :--- |
| Help | Sit with them when doing their homework. <br> Encourage <br> Check |
| Encourage with homework, make sure everything is correct. |  |
| Encourage/use of ICT <br> ( $n=5$ ) | Use of interactive computer reading and writing programs with themes my child <br> likes. |
| Email | Teach them to use Internet. |
| Internet |  |

We find here a comprehensive range of responses concerning the kinds of activities that parents report engaging in to help their children with their literacy learning and development. Of note is the substantial number of parents who report engaging in 'teacher-like' behaviours at home. These tend to follow the kinds of patterns we have described in our discussion of teachers' activities and explanations. But there are also parents who go beyond the teacher role and draw attention to the particular kinds of activities and attitudes that are distinctively afforded by the home context. In particular, we find parents discussing the social aspects of literacy, and the everyday, non-school literacy tasks and materials that help the home function.

Question 3: What do you think teachers could do that would help boys with their reading and writing?

We received no response from 38 of the 294 respondents to this question; and 13 indicated that they were not sure or that teachers were 'doing fine', and what is needed is 'more of the same'. Out of the remaining 243 responses, we were able to collect 11 main categories of response and, again, a number of parents provided more than one kind of answer to the question. Figure 4.18 provides examples of parents' comments under each category and, as before, the categories of response are listed in descending order of frequency.

Figure 4.18: Parents' advice to teachers
$\left.\begin{array}{ll}\hline \text { Categories } \\ \text { Select materials of interest and } \\ \text { relevance to boys } \\ \text { (n = 83) }\end{array} \quad \begin{array}{l}\text { Some examples of comments } \\ \text { Specifically (teachers) need to understand gender differences and to look for } \\ \text { more books of interest to boys. They need to teach more useful literacy, not just } \\ \text { stories or reports but writing techniques for everyday use and communication so } \\ \text { boys can see the purpose of writing, reading in everyday situations so literacy } \\ \text { becomes automatic, not a chore. }\end{array}\right\}$

## Classroom strategy

( $\mathrm{n}=26$ )
Literacy tasks incorporate active, hands-on component, or follow physical activity

Integrate literacy with other curriculum areas

More reading aloud in class
Discussion of books
Reading to/with partner
Teacher reads variety of materials to children

Have regular breaks (games) from literacy and maths to accommodate learning styles.

Build/make something then write about it and read to class or label buildings etc. Use daily PE so boys can be active, and then settle to more detailed tasks.

Is it possible to incorporate more English expression into traditional 'boy' subjects such as maths, DA, etc., e.g. as part of a maths calculation, a description of the process is added. This ability would be useful in any profession where science/maths is the main focus.

Integrate the improvement of reading and writing skills across a range of subjects. For instance, my son is usually much more enthusiastic about writing a science or maths report than an English assignment. However, he doesn't think that editing and attention to grammar is a high priority with these subjects.

By reading stories to the boys as part of each day's activities - possibly towards the end of each day, creating interest in books and authors.

Encourage them to discuss in class books that they have enjoyed to try to attract the interest of other boys.
'Reading Buddy'/'Big brother' role-model, i.e. a $6^{\text {th }}$ grader to help a younger kid with (.) This becomes a symbolic relationship as not only does it help a struggling child but the older child learns to help and usually feels good about doing so.

Read to kids all through K-6, especially books the teachers are passionate about - it's catching! All types of literature, including poetry, fairytales.

| Focus on specific skill <br> $(\mathrm{n}=18)$ | Sending home a spelling test every week, around 10-15 words then testing the <br> children on a Friday. |
| :--- | :--- |
| Phonics | More practice with phonological awareness training and word-analogy training <br> and ascertain which method works best for each child or combination. |
| Spelling | I think there needs to be more time spent on the spelling, writing, reading and <br> times tables in general in the earlier grades. I still believe that more repetition <br> and practice makes perfect. Our children's writing has deteriorated a lot since we <br> were at school (girls included). |
| Grammar | To be more precise in their teaching methods and teach the 'rules' of the English <br> language. |
| Practice/repetition | Repetition learning years ago helped everyone (boys and girls) to learn to read <br> and write and spell. That would be a great help if that was brought back in. |
| Rules | Do more reading and writing with them. |
| Spending more time of a day with books etc. <br> ( $\mathrm{n}=14$ ) |  |
| Identify and target problem areas <br> ( $\mathrm{n}=13$ ) | By devising and implementing an assessment tool to accurately identify the <br> degree of need for each child and in what area extra assistance if required. <br> Another assessment should then be done when it is thought the child has <br> reached the required level of achievement. Obviously, these processes already <br> are in place, but maybe, they should be reviewed and new learning programs <br> implemented that are based on repetition. |
| Communication with parents | Focus on the ones that are struggling, maybe extra help in the classroom, let <br> parents know that their kids are struggling and maybe parents should organise <br> private tuition, or help with their reading at home. |
| Focus on 'strugglers' | Identify those having trouble and spend more time with them on reading and <br> writing activities. |
| Focus more on those that require help than those that can do the work. |  |


| Parental involvement $(\mathrm{n}=12)$ | Have parent help in the classroom more often specifically for reading and writing. |
| :---: | :---: |
| Parent help in classroom | Provide parents with lists of books boys may be interested in. |
| Keep parents informed | I think if teachers and parents could work together more, maybe we might be able to get their interests back to school work. |
|  | More methodical feedback to reading/writing based homework projects (to both students and parents). Involve parents in reading/writing disciplines. |
| Enjoyment $(n=12)$ | Make it a game. Turn it into a competition. |
| Make it fun |  |
| Make it competitive | Make it as fun and enjoyable as possible. I think adding an element of competition for boys would also help. |
| Male role-models $(\mathrm{n}=11)$ | Discuss the importance of role-modelling at home, especially fathers. |
| Family members <br> Teachers | Boys need more male influence by more male teachers in the school and they can also see the male teachers reading and writing and hence imitate them. Encourage fathers, brothers, uncles etc (males) to read to them so they don't think reading is 'sissy'. |
| Male public figures | Introduce lots of positive role-models, e.g. local or national sports stars who talk about their favourite books or read great stories to children. |
| Non-‘sissies' | More male teachers in primary schools. |
| Change attitudes $(\mathrm{n}=9)$ | Targetting the 'cool' anti-achieving syndrome as it emerges. <br> That it is quite okay to be good at both reading and writing and to enjoy books. |
| Not a 'girl thing' not to be dumb | I think boys need to be encouraged to enjoy reading and to know from an early age it is not a 'girl thing'. |
|  | Try to work on the perception that it is cool to be dumb and disinterested. |

The large majority of parents had clear and often strongly expressed views about what teachers could do to help boys with their literacy learning and development. Many focused on interest and engagement, applying these ideas to the selection of materials, the activities in the classroom, and the social structure of classroom work. Many also stressed the need for more attention to specific literacy skills. Two other points are notable: first, some parents pointed to the need for teachers to convey more precise information on literacy difficulties to parents; secondly, several drew attention to the need for more male literacy-models at home and at school for boys.

## Conclusions from the survey data

We have tried to do justice to the time and effort that teachers and parents put into the completion of the surveys, and to the diversity and strength of their views on 'Boys and Literacy'. We have done this not only by attempting to categorise their responses and noting statistical patterns among them and between those responses and other features of the teachers, their classroom and community settings in which they work, but also by including the exact words in which a representative sample of their views were expressed.

Our approach has not been to critique those views by some consideration of their empirical status; rather, we take these expressions to be a representation of the
discourses widely available in the subculture of teaching and in the community at large. It is clear that a number of central logics are at work when people consider the issue of boys' literacy learning and performance. To conclude this section, we briefly summarise these prevalent logics and some of the features that seem to be associated with their distribution in this sample.

Two major points can be drawn out of these explorations of teachers' and parents' views on literacy performance in school and its association with the particular problems of boys. The first is that literacy performance, learning and development are widely seen to relate to conditions at home and to conditions out of school. There seem to be five aspects to this relationship in the perceptions of these respondents:

- Issues relating to motivation and self-esteem;
- The modelling of literacy activities (by parents but particularly by male role-models);
- Oral language development;
- Knowledge of the specific skills related to literacy (spelling, grammar, comprehension, and so on);
- General broad exposure to school-relevant aspects of the culture.

A second general proposition, brought to the fore by many respondents, is that boys can be ascribed specific attributes that distinguish them from girls and that are related to literacy learning and development at school. These included:

- Higher activity levels;
- Competitiveness;
- Reactions to criticism, related to self-esteem problems; and
- Greater susceptibility to a variety of psychological, perceptual, linguistic and social 'weaknesses'.

It is clear from our examinations of the associations between these views and the features and locations of respondents, that these ways of thinking are powerful and prevalent among teachers and parents. They are compatible as well with discourses and presumptions widely available in the culture and readily evident in the popular media and in many folk and professional accounts of boys, schooling and literacy. While the accuracy and productivity of these ways of thinking has been long debated, they appear strongly in the rationales developed by the teachers who took part in the interventions of Phase 2 of the study, and thus they form a significant context for any understanding or evaluation of those interventions.

These discourses 'come from somewhere'. They are not invented from individual to individual; nor can they be seen as simple translations, tenable or otherwise, of cultural perceptions or stereotypes. They come from the interaction of available discourses and the day-to-day experiences of teachers and parents. As such, they can be seen as providing both the breadth and the boundaries of literacy education efforts in homes and schools: they delineate what is possible and what is not. In the next chapter, we draw these themes out in more detail and begin to set up the framework within which we describe the interventions reported later.

## 5

## ObServing and explaining boys' literacy performances

This chapter provides a discussion and commentary on the observations and explanations teachers and school principals offered about boys' engagement and achievement in literacy. It draws upon data collected, in Phase 1 of the study, from 24 sample schools selected in collaboration with the members of the study's Advisory Group. Schools from Queensland, New South Wales and Tasmania were chosen to cover a range of contexts including:

- communities of high to low socio-economic status;
- urban and rural communities;
- Indigenous populations; and
- populations with a language background other than English.

Each school was visited by a member of the research team, who interviewed teachers in year 2 (year 3 in Queensland), year 6 (year 7 in Queensland) and school principals. Where possible, the research team also observed a lesson in targeted classes. This phase of the study generated approximately 72 interviews, transcripts of which have been analysed in two specific ways:

- observations that teachers and principals made of boys' practice in literacy classrooms; and
- explanations that teachers and principals offered about boys' literacy achievement.

While teachers and principals across the 24 schools did not always make common observations or draw upon similar explanations, there were comparable sets of understandings lying behind many of the key observations and explanations. In most cases, teachers commented on an observable, demonstrated set of practices that boys appeared to draw upon in literacy classrooms - often comparing this (unfavourably) with practices they regarded as far more desirable in terms of improving literacy outcomes. When explaining this mismatch, teachers often drew upon biological or psychological theories, and suggested that family background, ethnicity and gender were highly influential in the formation of boys' practices. Inevitably girls' literacy practices were often considered in opposition to boys' literacy practices: girls' practices appeared to have become teacher-preferred - the 'naturalised' set of practices that would achieve desirable outcomes. Deficit discourses predominated in observations of boys' behaviour although, as this chapter demonstrates, other discourses - pointing to strengths and potential that boys accessed - could also be found within the teacher transcripts.

## Observations of boys' Literacy practices

## Drawing comparisons between desirable practice and undesirable practice

When describing boys' underachievement in literacy, teachers frequently called up demonstrated examples of 'undesirable' practice. 'Desirable' practice appeared to be quite closely identified with girls' practices. Girls were considered to be more imaginative, to work harder, to try harder, to read more widely and to be more compliant. Boys' practices made it difficult for teachers to effect their planned literacy pedagogy, resources or assessment. Boys were seen to be resistant to commonly used pedagogies, commonly used resources and commonly used classroom practices. Oppositional paradigms as in Figure 5.1 below were commonly drawn upon.

Figure 5.1: Oppositional literacy practices - girls and boys

| Practices considered valuable | Practices girls demonstrated: <br> 'Desirable’ practice | Practices boys demonstrated: <br> ‘Undesirable’ practice |
| :---: | :---: | :---: |
| Read and write across a wide range of genres | Access a wide range of writing and reading genres, including literature; imaginative story-writing | Access narrow range of writing and reading genres, focusing predominantly on sport and leisure; avoidance of imaginative writing |
| Perform teacher-directed classroom work to standards expected | Follow instructions easily; implicitly recognise task demands. Write tidily, and often exceed length requirements; pride in, and strong attention to, completion and presentation of work; stick with a task; do it properly | Fail to follow instructions; need explicit pedagogy and guidelines for tasks. Write untidily, and fail to meet length requirements; minimalistic approach to completion and presentation of work; take short cuts |
| Accept the inevitable 'artificiality' and passivity of classroom literacy work | Compliant about accepting 'school' tasks; compliant about completing teacherdirected literacy tasks | Require clear purpose and relevance for engagement in literacy tasks; prefer 'handson', practical literacy tasks |
| Accept the physical restraints of the classroom | Accepting of regulated physical activity in classroom space; good classroom behaviour | Physically restless and active in classroom space; poor classroom behaviour |
| Engage confidently with colleagues; demonstrate confidence, personal selfesteem and good social organisation skills | Confident in classroom; work collaboratively; positive attitude to literacy; good social organisation skills | Low self-esteem; don't want to be put down in front of others; negative attitude to literacy; poor social organisation skills |

However while boys' 'undesirable' practices - their lack of required literacy skills and competencies - tended to dominate teacher talk and observations, there were also observations by teachers of 'other' practices to which many boys had access, that could be regarded as highly desirable for the emerging new literacy modes and literacy contexts of the future. For example, teachers commented on boys' willingness to engage in problem-solving 'real' world literacy tasks; in computermediated modes of literacy; in debating, public speaking and performance tasks, and in the discourse demands of their communities.

Figure 5.2: 'New literacies’ practices
Observed ' additional' practices from boys: 'new’ literacies
Interest in contemporary world, 'real-life' tasks
Knowledge of, and interest in, computer-mediated literacy modes
Enjoyment in public presentation modes of literacy
Conversant in, and confident with, discourses of their communities and peer groups

## 'Undesirable’ practices

Teachers and school principals made many comments about what boys lacked and saw this 'lack' as a noticeable impediment to literacy achievement and engagement. This 'lack' was often painted in comparison to girls' behaviours and practices. Boys were regarded as different - they had different interests in reading and writing; different responses to classroom instructions and pedagogy; different needs for functional, instrumental literacy tasks; different desires for action and physical activity; and different levels of confidence as 'learners' in school contexts.

## Read and write across a wide range of genres

Interest in writing: writing styles and content
Teachers observed that boys did not like writing, that they took little interest in polishing and refining their writing, and that they tended to reject imaginative writing and writing about their emotions and feelings.

I would say that this year none of my boys enjoy writing. I think they find it a chore. I think boys in general don't like writing, given the choice they wouldn't sit down and just write a story ...
(GB: year 7)
I think boys tend to find the writing process onerous, that they've got to sit down and concentrate. I think they'd much rather be out and moving around with regard to that.
(TN: year 7)
The poor boys don't write a lot. You're lucky to get two lines because it is a real struggle whereas 'Shane' (pseudonym) will write two pages, so it's the ideas and thought process are there, and I can work on that, whereas with the boys they need individual help and they don't want to attempt anything by themselves. 'Bill' who is a behaviour problem will do anything to avoid work.
(FM: year 2)
The boys, once again, looking at the same group of boys, there's nothing happening. (....) They just don't seem to have imagination, if it's that type of writing. The only time I've noticed in the past term and a half, out of the group of three low-achieving boys did write anything that was actually of
any value was, we've just been to the Fraser Island for two days, so it had to be experienced for them to then write really well about. But when it comes to spelling, anything like that, they're just not interested, they just turn it off completely. (DF: year 6)

If you ask them if they want to write a recount about what happened yesterday or what they did last night ... 'Susan' will write you a page blow by blow, of every thing that happened. 'Sam' will write you two sentences. There's a difference in how much 'Susan’ will write ... it's not always very well written, but 'Sam' is not keen on writing great amounts of work, he will write you the shortest little sentences for homework.
(BM: year 3)
Teachers also commented on how boys needed more assistance in planning and structuring written texts.

T: I think the boys need more structure, boys need to hang their language from the rules, and so do our multicultural children, so I'm basically saying the needs for boys are the same as the needs for the multicultural ones.

I: So the multicultural issue exacerbates the boys thing.
T: Yes, and also I think boys react more when they don't know. They tend to over-react and toss in the towel with regard to that whereas the girls tend to more keep going and going and going and sometimes they get through.
(GB: year 7)

## Interest in reading: preferences for popular cultural texts

Reading had similar problems. Teachers observed that boys didn't want to read, and seemed only to be interested in current sport and leisure texts - texts with significant visual appeal.

Just a problem I have with the boys is finding materials that they are very interested in, whereas the girls will sit down and read almost anything. They'll read any style of literature at all. I find it more difficult to get appropriate material for ... my middle to low achievers. I mean I resort to newspapers and sporting sections in newspapers and magazines, and stories about people like Dick Smith and real-life characters to try and get them motivated and interested. It's low-ability material I would say at a high interest level but at a level that they can cope with, especially grade $7 s$ because I find they are reluctant to pick up what they would term as a baby book. They don't want to be seen reading something that looks like
a baby book. It's their ego that gets in the way, and I can understand that.
(BM: year 7)
Now, with the boys, on the whole, the only way I have been able to get them to read is to bring in Monday's paper and (..) The boys, they'll borrow books from the library, they'll open a book, and they're looking at the wall or out the window, they're not in fact reading. Unless I ask for a recount or something, they're not going to read that book. However I've discovered that if I bring in the sports pages, they're on the floor, they're in clusters, they're reading, they're talking. So that's the motivation I've used. I've not gone to the (..). (TN: year 7)

The material boys seemed to be prepared to read was almost stereotypically 'male'.
I: Do you find that the boys and the girls tend to focus on different sorts of reading material?

T: Yes. Boys generally like trucks and tractors and cars and motorbikes and things, and the girls would be into their fairytales, stories and novels and things like that.
(BD: year 2)
The boys I think about when I'm thinking about my low achievers, they definitely go for the non-fiction texts, and also books that have say maps. And the let's find something in the book, the sort of puzzle type books that have text with them, and yeah books about animals, lots of non-fiction texts, whereas, I find it very hard to get them engaged in something, to actually select themselves without being asked to, a story book.
(MM: year 2)
I think for the boys, reading resources would cover sport, motor bikes, cars, planes, anything that has anything to do with technology. And with the girls, they don't, with science, anything that's scientific the boys will go for. I don't seem to find that problem with the girls, girls just seem to go along, go with the flow. With the low achievers, girls and boys, it has to be year 7 interest level but written at a standard that they can cope with.
(BM: year 7)

## Perform teacher-directed classroom work to standards expected

Here, too, it was a common observation that boys' lower performance accounted for their disengagement with schooling, and their poor success in the literacy classroom.

Yeah so interesting to watch, we notice the boys' ability just to copy from the blackboard. And definitely needing direct instruction on how to, you know if they're given a sheet, comprehension sheet, the boys need more instruction on how to tackle that work. How to break their work down.
(OT: DP)
Teachers commented on how boys were likely to turn in a 'minimalistic' performance and poor quality in presentation.

I find it most marked in reading comprehension, more so than reading, and I (...) and I find it in style of writing, when they're asked to write, boys tend to be what I call minimalistic. If you ask for an introductory paragraph, two or three paragraphs to support something and a conclusion, that's precisely what they give you. The girls will, they'll, let's say they're doing a recount, they will allow, they'll fulfil the purpose of the task. If they need more they'll take it, whereas the boys will, they'll stick strictly to the recipe. And if you said in your introduction, as I said before, (..) orientation, two or three paragraphs will be this, and a conclusion, that is precisely what the boys will do.
(TN: year 7)
The boys sort of just tend to see in black and white, and just you know bang bang bang, and that way they're not giving you as much, whereas the girls seem to be able to look at it and say how can I make this work so that I can give as much in this particular way. I try to make things fairly, lots of choice and openendedness and contracts and all that sort of stuff. I'm aware of different learning styles and all of that and I think that seems to work better for the girls. The boys still only tend to give you the basic things. They still, I think they still, I don't know whether they enjoy it but they still sort of use it but still not give you as much. Whereas the girls will really run with it.
(SP: year 6)
Girls are really particular about their handwriting an' their neatness. They like it to be presented ... Boys just want to get it done quickly so they can go on to something else.
(SP: year 3)
T: I think girls, again this is a generalisation, I get the impression that girls are much better at things that require an intensity (..) application for long periods. And it may be tied up in the culture that they maybe want to please.

I: You think girls want to please more than boys.

> T: They used to. Boys don't want to please anybody. That's generalising of course. I think boys are quite ho-hum about pleasing, and I think if a boy is seen to be a teacher pleaser, I know with my own two sons, that that's -

> I: What happens then, when they're seen as a teacher pleaser?

> T: Oh they suffer a ribbing. (FM: P)

Teachers also observed what poor social organisation skills boys often exhibited, and how this disadvantaged them within the classroom and the school.

But you can certainly see, you can pick which (..) bottom 10 per cent by how they operate themselves as human beings. Who wears a watch to school to know when it's second half lunch, or the tennis bus is ready to go.
(OT: P)

I think it's just organisation and planning is a big issue for them, and that might have to be incorporated, I don't know how.
(OT: P)

## Accept the inevitable ‘artificiality’ and passivity of classroom literacy work

Teachers observed that boys who were achieving poorly in literacy needed more active, hands-on activities - that they were resistant to the passivity of the classroom, and the print-based activities that were commonly set.

And with everything that you do boys like the hands-on things, they like to get in and they like to show you how to do something rather than have to talk about it or verbalise it or write it. They like to get in with their hands and make things. (US: year 2)

They're outdoorsy boys, they're boys who are practically orientated. They'd rather be out riding a dirt bike or climbing a tree so um sitting at a desk is not for them. They need to be more active and perhaps we as teachers need to consider that too.
(NL: year 7)
(They) probably need more hands-on things, I really feel that these kids really need practical things like you know, let's build a bird cage, or let's do this, and then let's write up the instructions for that.
(DF: year 6)

Teachers commented that they tried to build shorter, more 'hands-on' practical activities into classroom literacy work to account for this resistance to print-based, passive work.
... generally on a fortnightly basis I'll alternate between a structured sheet type activity, and a more art-based hands-on activity. And they really do enjoy that.
(SB: year 2)
These are strategies I think work for the whole class ... the short, sharp, sweet thing, because they know they're not going to write for a whole hour, they're just short, sharp and sweet. (FM: year 2)

This focus on 'the practical' - almost the 'real world' - seemed to be particularly important for engaging boys with writing.

I find that the more practical something is the more I'll get out of the underachievers whether they be boys or girls, they're more stimulated especially in writing if they've actually experienced something, they're keener to write, if they've seen something they're keener to write.
(BM: year 7)

## Accept the physical restraints of the classroom

Many teachers saw this as a major problem for boys, and one that has been exacerbated by changes in culture and education over the past twenty years.
... what we've done in the curriculum is that we used to have years and years ago a lot more physical activity for boys, but because of the emphasis in our culture now, to be placed more on intellectual pursuits, you know, (...), boys find that harder in general than girls do.
(FM: P)
Boys seemed to resist the physical restraints of the classroom - even in kindergarten - and, for some teachers, this was the key to their poor literacy performance.

It certainly seems to me that, you can see when children start in kindergarten the boys from their behaviours in kindergarten, who potentially will be your poor performers in literacy, in that they're the ones at the back of the group rolling on the floor with their feet in the air, or you know, it generally seems to me how prepared the boys are to participate in the actual lesson activities.
(OT: P)
Again, this was seen to mark boys out from girls: to mark them out as exhibiting 'undesirable' practice.

They're all very disruptive. They're all very talkative and they're selfish. They want their own agenda.
(VM: year 6)
And I think it's just the nature of the sexes. I'm not suggesting that girls are more compliant. But I am suggesting they are more amenable to sitting for longer periods, for concentrating for longer periods of time, where boys, because of a sort of inbuilt boisterousness, they're more prone to rush in and miss the detail than are the girls, and as we all know, reading is a very complex, learning how to read is a very complex process, a lot of which we still don't know much about ... but one of the things we do know is it does require application ... (FM: P)

I've got some boys that are low achievers that are just you know their behaviour is very talkative and bouncy and off-task and very energetic boys that are just, that can't seem to sit still for long enough to actually complete something ...
(MJ: year 2)
The pictures that many of the teachers drew of boys' restlessness and boisterousness in classrooms bore striking similarities: boys rolling on the floor, roaming around the room; playing with toys instead of working; and making loud and disruptive noises in the classroom.

They might get up and have to swap their books and the other partner is waiting for them. They start chatting or they get their cars out of their pocket, or cards out of their pockets, anything to avoid it.
(FM: year 2)
The sort of thing he does is whistle. He's always got something in his pocket that he shouldn't have, and so he'll get it out and fiddle, he has a hat on inside where he shouldn't. I sometimes let that go because that's one more thing we have to argue about so he might have his hat on, takes it off and puts his cars in it. He does what I call (the sea gull) with the baby talk where he goes, ' 'whah, whah', like that, and actually speaks like that. He'll go 'neao neoa', like that.
(FM: year 2)

## Engage confidently with colleagues; demonstrate confidence, personal self-esteem and good social organisation skills

Most of the teachers drew attention to boys' 'lack of self-esteem' in regards to literacy learning and the literacy classroom.

They definitely have a lack of self-esteem problem ... still definitely has a low self-esteem, very low self-esteem. (FM: year 2)
... my low literacy people, a lot of it's to do with them having low confidence and low self-esteem in that area.
(ME: year 2)
This self-esteem problem was considered to affect boys' performance in other areas.
I think having low literacy skills can therefore decrease their self-esteem in their other areas as well.
(MM: year 2)
It was also seen to influence several aspects of boys' behaviours at school: their willingness to read aloud; and their willingness to be shown up in class as incompetent. Teachers tried various strategies to protect boys from such embarrassment, and also worked at restoring their confidence.

They loathe reading aloud because it tells everybody what they know themselves. They try and, access to, they can find access to learning in all learning areas difficult, and we try to not make that so.
(ME: P)
Often I work with boys in reading, if they've got a confidence thing or they've got a bit of a male problem, you know, not wanting to look stupid, I'll mentor them with boys.
(MM: year 6)
(I provide) lots of positive reinforcement, lots of, that's fantastic, boosting their self-esteem ... So that's their challenge which is self-esteem, I think confidence has got a lot to do with it.
(MM: year A)

## Observed practices associated with 'new literacies'

However a far more productive and interesting set of discourses was intermingled with these deficit discourses about boys' abilities to access desirable and productive literacy practices. Many teachers clearly observed practices that boys had access to that were valuable for the 'literate futures' (Luke, Freebody \& Land 2000) that lay ahead of these students.

## Interest in contemporary 'real life’ tasks

I don't know if it's more important, I just know that I found even when I've taught years 6 and 7, boys seem to be the ones saying why, why do I need to do this. And they need a reason. (BM: year 3)

Many of the teachers commented on boys' concern for purpose and functionality in literacy tasks. Boys needed to see why they were being asked to do a particular task, and why the task might be of value to them. This seemed to be connected with the strongly 'hands-on', 'practical' focus that teachers observed, and with boys' reluctance to engage in reading fiction or writing imaginatively.

> I think boys will question more the relevance of why they're doing something, why am I doing this, even in year 3 ... I found as soon as they can see a reason for doing this, and a long-term reason, they're more interested and they will tune in more if they can see that there's a reason to this. They can't always see a reason for writing a nursery rhyme, or anything like you know some of those things, but they can see a reason for writing a report, or they can see a reason for needing to know about money and how to handle money ... And the children go something like, oh yeah, we're going shopping and we need to be able to read just what's on specials, and we need to read these real-life things.

(BM: year 3)
This often meant that 'critical literacy' strategies worked well for boys.
I've noticed, I think in this area, like a lot of the boys really like the critical literacy and the hands-on literacy that relates to other areas of the curriculum rather than just sitting down and doing that routine handwriting and things like that.
(ME: year 2)

## Knowledge of, and interest in, computer-mediated literacy modes

Boys' interest in computer technology was frequently mentioned by teachers and school principals. Boys were commonly found playing with, and working on, computers during lunch breaks, and appeared to prefer to write on-screen than by long-hand.

My boys, my boys are the ones who will go to the computer. (BM: year 7)

They are more comfortable with using computers and word processors than using long-hand.
(ME: P)
Teachers considered computer technology as a 'motivational' thing, and also observed that boys were really exploring the potential of electronic modes of communication.

I find that the computer is a very motivational thing, and it's very interesting because when I give them that option, like if I'm giving them, perhaps they've got three choices, I find that the computer is always the one the boys go for first. I've actually got a spelling game on my computer which is a car-
racing one, and the boys just love it, I mean they'll play that before school all morning if I let them ... The computer is definitely something that really sparks their interest, and is motivating, and I find that if I incorporate that in my program and like I can change the words and what have you, then they really sit and concentrate even more so.
(SB: year 2)

## Enjoyment in public presentation modes of literacy

Boys' willingness to 'perform' - to role-play, debate, dramatise, speak out - was noticed by many of the teachers in the study. For some teachers, this was seen to be linked with boys' interest in 'hands-on', 'real-life' activities - and their lack of interest in sitting passively at their desks. Public performance modes made the classroom a more interesting, active and engaging arena for some of the boys, and gave them opportunities to write, read and discuss that were less accessible to them from other classroom strategies.

I: Do you notice any gender effect with respect to literacy achievement?

T: Oh yes. Probably depends a little bit on the activity, but most times in literacy I've noticed just with speaking and doing literacy, the boys are right into it.

I: What do you mean 'doing'?
T: Debating, so viewing, speaking, listening, those kind of ones, the boys are right into it. And when we're doing our spelling at our desk or our comprehension or punctuation, at our desks, off the board, that kind of thing, definitely the boys are more inclined to chat or get up and walk around, so therefore, whether they could achieve it or not doesn't get found out because they're not there doing it. And the girls sit there and do that. That's the main thing I noticed, probably would be the main thing I notice in all these things, that the boys have just got all that energy to use up, and when you've got them up doing an actual activity rather than sitting and doing it, they're more likely to enjoy it for starters, show their true colours and not chatter so much and do the wrong thing. (BD: year 6)

Role-play and drama were also seen to have important spin-offs in terms of boys' behaviour. Boys seemed prepared to enter seriously into role-play and dramatic situations, and to engage productively with literacy work while in that mode.

Oh yes, they are (..) because it's not them, they're somebody else, could be a mechanic, a scientist or ... The one we did on (.) beach because I'd done a unit on the sea was fantastic because a resort was going to be built and we had a lovely
> little country town and sort of had the pros and cons and, I'm not a teacher in that so I can't ... take on the roles of mayor and things like that, and we build up to a meeting, the very end one is like a meeting and we have to write on whether we're going to have it. And the kids were amazing ... Last year, this is last year but again with drama and a similar thing, I had a boy, a behaviour problem boy but within drama he was really sensible in that he was a policeman and he had a gun, but he kept that on him in the drama, didn't use it once. He spoke beautifully. The minute the drama was finished, and we clap our hands like that to say we're out of role, he got the gun and went bang bang bang bang. Not once did he do it in the drama, so that's what I mean, it's a fantastic thing and the boys do like that. (It means) you're getting up, doing. But in the writing too, you get your best results. So that's fantastic. (FM: year 2)

## Conversant in, and confident with, discourses of their communities and peer groups

A comment from a year 6 teacher raised an additional competence that boys may often have which could directly impact upon their relationships at school, and their engagement with school work. This teacher observed how effective many of the boys were in their local communities, but how ineffective they often were in school communities. In other words, in their social and cultural contexts - contexts that were 'real' - boys were competent and effective language users. However in the un-real language contexts of the classroom, they usually failed to demonstrate competence and effective language mastery.
> ... when you watch them in their local community, they're both effective, in fact probably boys have more of $a$, not street ways, but being able to function in the community at a higher level, we have lots of Samoan and Tongan children, and the boys and that cultural understanding well they're it. The girls however when it comes to a structured (.) at school are the ones that perform better, so think that's a very interesting mix, and just looking at that I think that it's something that we're doing at the school or in the system or like beyond the classroom that makes that happen because it doesn't happen outside of the school. They're already functioning in the community, they can, they're working in the social view like the whole social language part, so, it's in the formal structures in the school that they're not. So in looking at that it's like well if they're OK over there and they're not OK here, something's not working, and I guess there's lots and lots of reasons that you could attribute it to.
> (US: year 6)

## Explanations of boys' literacy achievement

When asked for explanations, teachers and school principals drew on a variety of discourses to clarify why boys as a group were commonly over-represented in lower bands of school literacy achievement. As detailed below, observed boys' practices, and literacy achievement levels, were most commonly explained in terms of:

- biology;
- the influence of families and close personal networks;
- cultural differences in orientation to schools and the valuing of school learning;
- interactive effects of ability and home environment;
- the availability of male role-models in young boys' lives inside and outside of school;
- popular social constructions of gender and the influence of the media; and
- the influence of teachers and of schools themselves.

While each of these explanations is dealt with separately, teachers and school principals sometimes drew on a range of explanations simultaneously and offered an eclectic view for consideration.

## Biology

For many teachers, gendered differences in observed literate practices were explicable in terms of biological make-up and functioning. Biology, along with family background (see below), was one of the most commonly cited explanations in the transcript data.

In this section, teachers' explanations about the impact of biology on literacy learning have been clustered to highlight shared theories focusing on nature and genetics, and maturational rates and developmental patterns.

## Nature and genetics

Teachers and school principals drew heavily on nature and genetics in explaining gender-differentiated practices that ranged from willingness to comply with classroom routines, regulation of the body, expressions of energy, routines of play, organisational skills, motivation to learn, and daily classroom demonstrations of 'nous' and 'savvy'. Each of these practices was understood as being based in biology and as being related, either directly or indirectly, to engagement with literacy experiences that favoured girls' chances of becoming literate. Even the practice of sitting down was understood to be associated, in a pragmatic way, with difference in boys' and girls' opportunities to become literate:

I think it's just the nature of the sexes ... this is my observation from 36 years of teaching, boys are boisterous, less sedentary ... And I think that when it comes to sitting down - reading and writing - I honestly think that for some
boys it's excruciating.
(FM: P)
In a similar fashion, teachers explained perceived differences between boys and girls in learning styles as being based in biological givens:

> My belief is that boys are almost pre-programmed to think and to learn in specific ways, that I believe are completely, almost the opposite of girls. Some of the reading I've been doing [suggests] that girls tend to process all of their incoming information through their verbal cortex ... Boys, on the other hand, from what I've read ... either compartmentalise their thinking ... or the verbal side almost shuts down during a lot of problem-solving situations ... So we're sort of trying to say this is how we see boys as learners in language. This is how we see boys as learners because of how their brains may work ...

(DI: year 3)
Personalised histories of achievement also contributed to the claim that there was a definite link between genetic make-up and resilient differences between males and females in academic ability:
... there's definitely, I think, there is a difference[between males and females] but it's not simple. I mean I can't read a map. I can read - but I can't read a map. Why can't I read a map? Is it because of the way, my spatial, my spatial knowledge is pretty hopeless I would say. Mathematically speaking. Um you know, I try hard but my poor husband has to drive the car and navigate. So yeah, there is something there ... And they do say it's a weakness of women, isn't it. So is it the same with boys? I don't know. I don't really know. (NL: year 7)

Teachers like this one ascribed to biological theory while maintaining sufficient distance to question its veracity. For others, biological explanations assumed a stronger status.

## T1: I think it's genetic. I think it's in the make-up of boys ...

They are different.
T2: Oh. They are definitely different ...
T1: Definitely ... It's in their make-up.
T2: For sure ...
T1: I think it's really clear-cut actually in our class.

> T2: That's why it's so easy for us to be so definite about it! It just sticks out like a sore thumb doesn't it? (KB: year 6)

## Maturational rates and developmental patterns

While borrowing heavily from big-picture theories related to biology, some teachers and school principals focused on differences in maturation rates and developmental patterns when explaining differences between boys and girls in school literacy achievements. Throughout the interviews, teachers often couched their explanations in terms of comparisons between boys and girls, constituting boys as socially and physically less mature, not ready for school, unable to focus and concentrate, having less ready access to short-term memory processing skills, and as developmentally delayed. As one principal explained:
... my personal thesis is that it's basically boys, and they are not ready, I don't believe, are ready for formal literacy tasks, particularly ones where literacy, or where their learning, is chopped up into bits.
(ME: P)
Another principal made several references to the 'developmental nature' of boys who were 'obviously not ready' (SB: P). In like fashion, teachers variously commented:

Boys are more immature than girls.
(SP: year 3)
... [boys] don't have that academic focus, they're quite immature.
(DZ: year 2)
... when I look at them [boys] socially they're younger.
(OP: year 2)
I think a lot of it's a maturity level, with a lot of boys when they start school, I think a lot of them probably start a little bit early ... often they're not as mature as girls.
(OP: year 6)
For some boys, they start formal schooling too soon.
(VM: year 2)
Explanatory theories based on gendered differences in maturational rates, developmental rhythms and 'readiness' to learn were common themes in the transcript data.

Boys' concentration doesn't seem to be as switched on ... the prep boys probably take a bit longer to get into the structure of the school day.
(SB: P)

Maturation is a big issue, a very big issue in kindergarten you see boys who just aren't ready to start. They don't like to sit ... Boys are much more vulnerable ... (KB: year 6)

I think a maturity thing as well ... when children arrive at school, the girls are one or two years maturity-wise above the boys when they begin. So I mean they've already got that head start as soon as they begin kinder.
(BD: year 2).
I think there is some psychological or physiological mechanism whereby girls seem to take to reading easier ... Girls have always seemed to me to have a natural advantage. [I'm not sure] whether it's maturation or some predisposition or attraction to print, but girls ... have always seemed to me to have a natural advantage. I just think [girls] have a predisposition to that, just like boys have a predisposition to reading maps better than girls, and finding their way in space. Boys are more spatially aware.
(FM: P)
The effects of poor starts to schooling and lower levels of success in the early years were seen as attenuating over time for some boys as biology clicked in, as they matured, and as developmental schedules were re-aligned in ways that allowed boys to catch up to girls:

> Because sometimes I think it does click. They mature. Sometimes they take a while to catch up to the girls, and then later on, not all of them, it just clicks. It's a different developmental schedule.
> (MM: year 6)

## Family support

The level of family support available to children in the early years was as important as biology in theorising literacy outcomes. (This is consistent with the data presented in Chapter 4 from teacher surveys.) While biology was seen by some to set a differential seal on boys' and girls' potential to achieve in literacy classrooms, teachers and school principals were in general agreement that levels of family support had a powerful differential impact on what students were likely to achieve. Just as the interview transcripts made strong reference to the impact of maturation, so too they contained many references to the impact of families. No school failed to comment on the importance of family practices to the ways that children engaged with literacy activities at school.

Capturing teachers' investment in a theory that rendered parents responsible for literacy learning, one principal explained:

Well, generally, high literacy achievers come from, I'm not saying parents who are superior in any way, but parents who are interested in them.
(FM: P)
Some teachers spoke simply about the availability of home support and the culpability of families who did not provide it. Others, however, explained success in terms of the closeness of fit between school and home values, that is, the cultural capital that families could draw upon in helping their children prepare for the literacy demands of the school.

They [parents of high literacy achievers] believe in the importance of helping their kids too ... It's a two-way support system ... and I think they're the ones that believe in what the school is doing and value what the school is doing and realise that it is a two-way thing.
(NL: year 7)
Sort of good work habits established at home, well, you know, 'good' in inverted commas. Work habits established at home. Times for working. Spaces for working. And all the early literacy, the home early literacy stuff is probably well and truly in place before they ever go to school so by this stage it's part of their, you know, reading and writing are like speaking and listening for them. Totally natural.
(DB: year 2)
By comparison with families that optimised children's chances of success by closely aligning home literacy practices with school literacy practices, teachers explained that there were families who did not, or could not, provide a preparatory background and that as a consequence, in these circumstances, children were less likely to succeed.

We have children who come who have no idea how to hold a book, they don't know how to hold it, is it up the right way down the right way, particularly we're finding that in the preschool, they've got no concept of being read to from left to right.
(BM: P)
Overwhelmingly, children who were winners in the literacy stakes were presumed to have 'a great deal of support from the home' with parents who 'expect them to perform' (SB: P). They lived in homes where 'literacy is highly rated' and where their parents engaged in practices like taking them 'to the library to borrow books' (FM: year 2). Their parents insisted on 'regular attendance' (TI: P), were 'welleducated themselves' and had 'good parenting skills' (BM: P). Successful students had 'a lot of help from home' from parents who were 'really devoted to doing a lot of the work with them at home - and extra work, as opposed to just homework' (OT: year 2).

As they elaborated upon family background as an explanatory theory, most teachers drew on an oppositional logic as they had done in describing desirable and undesirable practices associated with boys and girls (see the first section of this chapter). Clearly embedded in these explanations were desirable and undesirable practices associated with parents' own literacy practices, and with their parenting practices which, in most cases, were directly related to socio-economic status (SES). That is, desirable practices were associated often with well-educated professional parents and undesirable practices were regularly associated with non-professional parents. In some of the interviews, teachers described low-SES, single-parent families as having the least desirable sets of practices. Single parents, commonly identified as women, were described as being emotionally needy, as being often unemployed or unemployable and, thereby, as being unable to attend to their children's literacy needs. Where explanations focused heavily on family background as the key causal factor underpinning literacy learning, single-parent families appeared to be the most culpable group of all, followed by two-parent families who did not have the skills to induct their children into literacy practices endorsed by schools.

The robustness of teacher talk centring on the significance of family background supported a clear link with literacy outcomes - a link which was expressed as selfevidential in terms of the opportunities and advantages that were afforded to some children and denied to others and were accrued even in the years prior to school. However, some teachers were quick to challenge the assumption that there was an easy relationship between the socio-economic status of families and literacy levels achieved at school.

> I have seen children who come from very affluent families ... the parents are so busy working they don't have enough time for the children, so the children are left to their own devices and left to watch television and play Gameboys and nobody gives them any attention, so they don't achieve at school. (BM: year 3)
> [A boy in my class] his mother is an albino Aboriginal. Very poor, socio-economic family. Neither parent works, but they do their very best for their children. Mum is always coming up to see how their children are going. Mum sits down and tries to help him with his homework even though Mum's degree of ability is not much better than [his]. And I don't think Dad's is either ... So they're very caring. They're just struggling along there.
> (BM: year 3)
> I can think of one family we've got who have four or five children at school. They're a very low-income family. And their parents are so encouraging of their children. They want them to escape from the way that they are. And you know, education is the way. And basically, they would scrub floors, sweep gutters to give their kids whatever opportunities ...
> (BM: P)

Teacher accounts, used to explain literacy outcomes in general, sometimes focused on the particularity of family influences on boys' literacy achievements. In some of the interviews with teachers there was a sense that some families might capitulate to low standards among boys because of their belief that it was natural for boys not to be good at literacy; that they might indulge boys with lower demands for work productivity; and that they might privilege the process of learning to be a boy as a higher priority than learning to be literate.

> And there's a lot of parental expectation stuff as well I think. You know, you get, 'Oh I couldn't spell anyway. He won't be able to spell because I couldn't spell. I was hopeless at spelling'.

(ME: P)
I think the girls in this particular school are pushed harder by their families ... When we have parent-teacher interviews, you know, you can say something along these lines: 'He's achieving really well but he could do a lot better. He could be achieving a lot better'. But the parents, if it's a boy, they don't seem to take it seriously. But the girls seem to be pushed a lot harder from home.
(DB: year 6)
Mum and Dad are very supportive ... but they have asked me not to do anything extra because he needs to be a little boy first ...
(NL: year 3)

## Cultures

Woven throughout the interview texts were numerous references to the importance of cultures in understanding literacy achievements at school. This was particularly so in schools identified as having a high proportion of students with language backgrounds other than English. Generally, teachers did not distinguish between the impact of culture on literacy achievement for male students and female students, although one teacher did suggest that both boys and 'multicultural' students needed a high degree of scaffolding and structure: that 'the needs for boys are the same as the needs for the multicultural ones' (GB: year 7).

In one school with a culturally diverse student body, the most important ontological link to literacy outcomes was described as 'an ESL factor' (DB: year 2) while at another it was described as being 'a cultural thing' (TN: year 3). Within this explanatory framework students from families whose first language was not English were seen to be 'on a back footing when they start' (DB: year 2). It was understood that these parents were less able to help their children learn to read and write in English even when they valued highly the literacy goals of the school.

Asian parents - especially Chinese and Vietnamese parents - were believed to be ambitious about their children's success and to be at the top of the ladder in terms of aspirations for their children.

> I think Asian parents tend to work a lot more at home with their children than the majority of say Anglo-Australian families, and even though they see you as responsible for it, they'll make sure their child is successful.
> (DB: year 2)

Khmer families did not fare as well in teachers' explanations about the kinds of support that were available to children depending on the particular cultural group to which they belonged:

> My Khmer kids - I find that (reading) doesn't happen at home. A lot of that's to do with financial reasons. The parents are working so much that they don't have the time. And perhaps don't value that much, you know, actually helping their children out as much as other groups.
> (DB: year 6)

In one school, Samoans were cast as the cultural group least likely to contribute to the efforts of the school, mainly because of their relaxed orientation to life in general:

> Samoans don't seem to have the follow-through ... I don't think that the work discipline is there ... I think [Samoans] place a higher value on leisure, on leisure time, and hence get away from applying themselves to school work ... Whereas the Vietnamese seem to have more follow-through - what you learn at school, you bring it home and try and get a little bit better at it.
> (TN: year 3)
> Now if I put a population cluster at the bottom for literacy, you'd find my Samoans would all be there ... they seem to focus on the social aspect of school. That's why they're here lots of people to socialise with ... They love to laugh, they like to be happy ... they waste an enormous amount of their classroom time.
> (TN: year 7)

Interestingly, in none of the 72 interviews did teachers or school principals draw specifically on the cultural backgrounds of Indigenous Australian children to explain levels of literacy achievements at their schools. In one school with a relatively high enrolment of Indigenous Australian children, the principal reported:
... our ATSI kids are not performing significantly below and in some cases [are performing] significantly above the other ATSI average data.
(BM: P)
At another school where the record was not as favourable, the principal noted that 40 of the 52 children who identified as an Aborigine or as a Torres Strait Islander - most of them boys - were experiencing difficulty with literacy (NL: P). But there was no attempt to draw on cultural stereotypes to explain this statistic. In this case,
particularities of Indigenous children's cultural backgrounds were not marked out as having explanatory power. Indigenous cultures were not attributed with characteristics that implied a cause-effect relationship with literacy outcomes.

## Interactive effect of ability and family support

In explaining levels of literacy success among students, teachers and school principals sometimes referred to the level of ability that individual students brought to the task of learning. Teachers spoke of their struggles to accommodate in their classes a wide range of student abilities including students who had been ascertained as having mild to severe learning difficulties and who attracted student support services, those diagnosed as having ADD or ADHD, and those whose intellectual ability was considered to be exceptional. Importantly, teachers rarely spoke of the potentiation of student ability outside of a framework of family support. The effects of student ability and family support frequently were seen as interactive, with one impacting on the other in reasonably predictable ways. This was equally true for boys and girls, although several teachers commented that boys were more often in 'slow' groups.

Figure 5.3 Student prospects of literacy success according to student ability and family support

| Student ability: high | Family support: high <br> Highest prospects of literacy success | Family support: low <br> Unevenly distributed prospects of <br> literacy success |
| :--- | :--- | :--- |
| Student ability: Iow | Prospects of literacy success are | Lowest prospects of literacy success. |
|  | maximised |  |

## High-level ability and high-level support

Students who were viewed by teachers as demonstrating high-level ability and experiencing high-level family support were considered as having the highest prospects for literate futures and were noted regularly as being among the highest literacy achievers in their class. One teacher explained that in the case of 'a naturally gifted, highly intelligent' boy with a 'wonderfully supportive family', success was ensured as the family made available opportunities to develop his abilities. Students who came from 'very caring families [with] a lot of family support' were often 'given a lot of opportunities that a lot of other children wouldn't experience'. Boys and girls in this happy situation were reported to develop 'a love of learning' and to be 'like sponges with insatiable appetites', soaking up learning to the point where the teacher 'couldn't feed enough into them' (BM: year 7). Given the privilege of both personal and home circumstances, it was not surprising, according to a teacher, that a boy in her class could be reading Harry Potter in early primary school, that he might work quickly and efficiently, and that he might offer her five pages of written text when only one was required (BM: year 3).

## High-level ability and low-level support

For students identified by teachers as having high-level ability but lower levels of family support, prospects for future success in literacy were unevenly distributed. According to teachers' explanations, some students' innate abilities would outweigh lack of family support while for others with high ability, the outcome was not as
certain. In the case of a 'very bright' student who was delivered regularly to school one hour late, the teacher predicted success:
... a lot of the time the only thing that actually keeps her up to speed is the fact that she is quite bright and she can pick up things very easily. She will just walk into the classroom, have a look at what her group is doing and join in. Whereas the bottom two children would have no idea.
(SB: year 2)
Similarly in another classroom, being very bright was considered to be a sufficient condition for a student to overcome any lack of support from home:

He is a gifted child ... he's amazing ... I think that if his parents didn't support him he'd still be bright. He's just a bright person you know?
(NL: year 3)
By contrast, for the students referred to in the following transcript extract, the teacher was not at all certain, even though they were bright, that they would navigate a pathway leading to improved literacy outcomes:

And I think also, if they're blessed with a natural ability to learn, those kids with the support will use that ability. I can think of a couple who have the ability, but don't see any value in education, and the only reason I can see that they don't see any value in education is because it's not encouraged at home.
(BM: year 7)

## Low-level ability and high-level support

For students judged by teachers as having low-level ability but high-level support from their homes, the chances of accomplishing the literate practices of the school were seen at least to be maximised. Children with learning difficulties who had 'wonderful parents', even when they did not reach the average performance of the class, were viewed as achieving more than they would have without that support (NL: year 3). Students identified within this category were generally viewed as being more attuned to the rhythms of the classroom and to be buoyed by their parents' and teachers' efforts:

> Praise him and he gets the greatest delight out of the smallest thing, the smallest amount of praise goes the longest way with him. Making a game out of some learning thing where he has some success encourages him to work even harder, and he will work even harder. And he has made great improvements this year.
> (BM: year 3)

## Low-level ability and low-level support

Teachers often expressed despair at the opportunities available to students whom they believed did not have home support and who, at the same time, they judged as having low-level ability - sometimes even identifiable learning difficulties. The prospect of literate futures for these students was understood to be the least likely.
... it's partly due to the transient nature of moving him from school to school. Home life is obviously very unstable so there's not a great deal of support that comes from home. I mean Mum's supportive in herself but I think obviously there are a lot of issues she is dealing with and hence the children are very much left to their own devices.
(SB: year 2)
[The student] seems to have a problem, not a huge problem, but doesn't kind of compute what you have actually asked ... But I'd say with my home reading program, it rarely comes back, and if it does come back, it's never signed. So I'm just presuming from that one piece of information that there probably isn't a great deal of support at home either.
(SB: year 2)

## Male role-models

When it came to understanding gender differentials in literacy performance at school, the absence of male role-models in boys' lives, both inside and outside school, was considered to be a powerful explanatory factor.

There was considerable teacher talk about boys generally being unsettled by the absence of a father:

> And although we can't prove it, I would say there is a lot more dislocation for a lot of our boys in terms of the dad not being there, with the dad not being around.
> (OP: P)

However, the presence of a father in the family was no guarantee that literacy would be modelled at home in ways that schools would appreciate. Many fathers were viewed as conveying the wrong kinds of messages about gender and literacy. Men who were not highly literate themselves were considered unlikely to encourage literate practices in their sons or to have the skills to help them meet the literacy demands of the school. Men in this situation were characterised in teacher talk as powerless and fatalistic about their sons' futures.

I want my fella to be better, but if he can't it doesn't matter. I couldn't do it therefore, you know, I don't hold that expectation. I want him to be better but I don't think he can. I can't really help him. I can't offer him the support I'd like to.
(BM: P)

Teachers' theories about male role-models were further elaborated in their talk about gendered literate practices that children were likely to witness in their homes. Here, it was argued, the practices of the school more closely aligned with women's, than with men's, behaviours. This line of explanation was offered to clarify why boys might reject literacy as a set of social practices.

> Well I think the male role-model has probably got something to do with the boys not achieving. Who takes the children to the library? It's usually Mum. Who reads in bed at night time? It's usually Mum. Dad reads things like the newspaper. He reads a different type of literature.

(NL: P)
In addition to the models encountered in the home, powerful male role-models on offer to boys in the outside world were seen as running counter to school efforts to engage boys in literacy activities.
> ... and the kids would know who the best footballer is and how many goals he scored ... the interest is in the football group. There's no interest in literacy ... Dad's model. But I think there's a decline in the bright male role-models for boys too ... those boys don't like to show off because of their peers. (NL: P)

Having argued the case of inadequate male role-models in the home and elsewhere, teachers also drew attention to the absence of male teachers as an associated problem for boys. Given the disproportionately low representation of men in the primary teaching force, teachers argued that boys were adversely affected by their absence. Teachers couched their explanations in terms of potential rewards associated with providing boys with positive models of masculinity. The rewards were sometimes associated with becoming a better adjusted, more integrated person, and sometimes more directly with meeting the challenges of school literacy.

> You know our experience here is that we have no male teachers and haven't had any for years ... I think that's an issue ... no positive male role-models ... They don't see male teachers, I mean, possibly don't see their dads either ... Some boys aren't getting positive role-modelling at home ... They might see Dad read the paper but that's about it. (SF: year 6)

> I like having some men on the staff because there's some personal issues with some of our boys in terms of being bashed up at home and those sorts of things. But a good male model - it's nice to have a good male model somewhere in their life if it's not at home.
> (OP: P)

(Boys' literacy levels will improve) when the boys see a male who values things like literacy, respect, being pleasant, being
respectful of other people and, you know, role-model ... when they see a person who actually takes an interest in them and they're male.
(FM: P)
While teachers generally agreed that boys would benefit from recruitment of men into the teaching workforce, particularly into teaching the early years, the difficulties of attracting male staff were considered in highly pragmatic terms.

> Teaching doesn't have a lot of positives to offer males for all sorts of reasons and one is, with all the publicity to do with child abuse. It tends I think to turn males off, thinking: ‘Well hey, I'm going to be in a class of kids and I can't give that boy a cuddle or whatever'. Um money wise too. I mean I live next door to a miner who tells me - whose literacy rates aren't high - he wishes he'd worked harder at school. He left school early. He's earning \$106,000 a year driving a bulldozer. You know. So you've got to look at all those sorts of things too. So yes. Male teachers in schools are a dying breed. That's a shame.

(NX: year 7)
Throughout the transcript data, explanations centring on male role-models were generally cast in terms of few good men being available to boys inside and outside school, especially during their formative years. However, there was also a suggestion, rarely alluded to within this theoretical framework that, under certain circumstances, female teachers could achieve the same effect. The caveat on this claim was that any teacher, male or female, who wanted to be effective with boys would have to begin at least by working with, rather than against, manifestations of masculinity.

> I'm saying women can do it ... [The female teacher] respects the dignity of boys. She doesn't want them to be like the girls. She wants them to be boys. She doesn't mind them being boisterous. She doesn't mind them doing things which girls don't do. And she's happy. Many women aren't because they feel threatened.

(FM: P)

## Social constructions of gender

Along with a range of explanations about gendered patterns of literacy achievement at school, teachers and school principals considered versions of masculinity available to boys in $21^{\text {st }}$ century Australian society and talked about the pressures on boys to perform as acceptably, and recognisably, male. Teachers theorised that for boys to prove their masculine status to their peers, as well as to themselves, they would reject outright 'those activities that are seen as more girlie' (ME: P).

In some communities, ideas about what it meant to be acceptably male were marked out clearly in talk and practice.

> In this area there really is a definite male idea of what maleness is ... I'm sure it's got to do with the way we construct gender in families ... Well it's, there's a lot of that man type stuff about expressing your emotions, about who reads, about what you play, about participation in boy sport, you know football. There's an expectation that this is the kind of person I'm going to be, if I'm a boy in this (rural area). (ME: P)

As teachers unravelled the complexities of these social theories, they made detailed claims about boys' ideas of being male, not only within the wider contexts of communities and families, but also with respect to specific school-related tasks tasks related to being conscientious about school work, being neat and editing work, and participating in reading and writing activities at school - which were seen as decidedly less 'cool' than engaging with maths and sciences.

I think a lot of boys value that less than girls do, value the results they might get from a test. They certainly don't you know, the sort of image stuff that goes along with it with so many boys of this age, doesn't let them be conchy, and doesn't encourage them to persevere beyond a certain point, doesn't encourage them to set things out neatly, go back and re-read. It's done.
(DB: year 2)
... perhaps not in the younger grades but in older grades, it's not cool to be a good reader. It's not cool to be a neat writer. You're better off if you, the heroes are on the football field. I think sometimes some children who are high achievers will actually underachieve on purpose to not be called a nerd or those sorts of things. And it's like reading and writing are for girls and science and maths are for boys, and that's pretty old hat now, and I told children that it's exactly not true.
(BM: year 3)
Drawing on social constructivist theories to explain boys' general disinclination to participate in the activities of the school, and their more specific disengagement with literacy learning, one principal focused on the impact of the media. It was the media, he claimed, that 'lionised' and 'celebrated' images of the male 'anti-hero' - images that were not available at all to girls. To the extent that boys adopted discourses and practices that constituted them as anti-heroes, they would be unlikely to present themselves at school as being compliant or cooperative, or as being in synchrony with the authority of the educational establishment or its staff.

## Schools and teachers

An explanation, infrequently cited however, focused on the impact of schools, and of teachers themselves, on literacy outcomes for boys. Generally, those teachers and school principals who reflected critically on professional practices questioned the efficacy of schooling for boys.
... I think that maybe schools today aren't catering for the need of boys.
(BD: year 2)
In arguing strongly that boys often appeared socially competent and literate outside school, one teacher identified the context of schooling itself as being deeply implicated in co-producing outcomes for boys:

> They're already functioning in the community, they can, they're working in the social view like the whole social language part, so, it's in the formal structures in the school that they're not. So in looking at that it's like well if they're OK over there and they're not OK here, something's not working, and I guess there's lots and lots of reasons that you could attribute it to. (US: year 6)

Elaborating on similar claims, the principal at one school nominated classroom teachers as the most significant factor influencing literacy performance at the school:

If the teachers present something as being exciting and valuable, then the children are going to see it in that way. Teachers spend five hours a day with those children, and often the teacher is a role-model for the children ... But if they're in a class where a teacher is not presenting something as exciting and interesting and it's just, you know, the doldrums, well then the children aren't going to be excited about literacy at all. If you've got a teacher who can promote that, well definitely.
(NX: P)
Resonating with the sentiment that schools and teachers did, in fact, make a difference to student achievement, another principal explained that 'the expectations of the class teacher, combined with the expectation of the parent ... would probably be the key issue' in understanding literacy outcomes for boys (SB: P).

## Conclusion

The interview materials generated from the 24 schools of Phase 1 of the study produced rich and multi-layered data about the observations and explanations teachers offered for boys' poor engagement and achievement in literacy. In general, teachers observed that boys had less successful ways of negotiating and participating in conventional literacy classrooms, and conventional literacy activities, than did many girls. They agreed that boys showed a general lack of interest in print-based reading and writing activities, and a lack of perceived purpose and relevance in school work; that they made 'minimalistic' efforts to complete and present school literacy tasks; that they were disruptive, easily distracted and difficult to motivate within the classroom; and that they lacked 'self-esteem' and confidence as learners.

However teachers also observed several features of boys' classroom behaviour which were far more successful in terms of engaging with the multimodal literacies and literacy contexts of the future. Boys' interest in electronic and graphic forms of literate practice, their willingness to 'do' literacy in active, public ways (such as debating, drama, public speaking), and their eagerness to engage with 'real-life' literacy contexts and 'real-life' literacy practices could clearly be seen as positive aspects of boys' literacy engagement and achievement.

Explanations that teachers offered about boys' lack of engagement and achievement in conventional literacy work drew from a variety of discourses and positions. Biology was a powerful and commonly used discourse to explain why boys appeared to act differently from girls, but teachers also considered that two other explanatory frameworks were significant: family backgrounds and the support families provided for literacy learners; and cultural backgrounds, along with the attitudes various cultural communities had towards schooling and literacy. A range of other explanations, including ability levels, the interactive effects of ability and home environment, the lack of male role-models for boys, the influence of social constructions of masculinity upon boys, and the influence of schools and teachers upon boys' schooling engagement and success were also drawn upon by the teachers and the school principals interviewed.

It was these data about boys' demonstrated classroom behaviours and low achievement, and the reasons seen to be responsible for these behaviours and low achievement, that guided teachers in Phase 2 of the study to construct appropriate interventions. Chapter 6 provides our interpretation of how these interventions were theorised, constructed and applied. It outlines our framework for understanding the complexity of boys' underachievement in school-based literacy, and for constructing appropriate programs of intervention.

## 6

## THE CLASSROOM INTERVENTIONS

This chapter presents an extended summary of the interventions conducted by the teachers participating in Phase 2 of this study. These teachers were asked to consider the particular needs of the boys they taught and, within the parameters of the study, to develop an intervention aimed at improving their literacy learning. They did this through discussion with the research team members at the training day and later via email and phone contact, with the other participants at the training day, and with colleagues at their own school. The latter sessions of the training day were set aside to discuss initial plans for their interventions.

Rather than reporting these interventions as 24 mini-case studies, we examine the nature of each of the interventions in the light of the teachers' written reports and the discussions provided in the interviews. We look for common themes with which to group aspects of the interventions. It is clear from the interview materials discussed in Chapter 5 that these participants generally did not hold fast to one particular account of why it is that boys might be underachieving in literacy, or to a singular description of the ways in which this underachievement might be manifested. As well, it is clear from the analyses presented in Chapter 4, that, even when the same terms were used by teachers (for example, 'engagement'), these terms were inflected in different ways. The kinds of interventions that teachers developed, again, even when aimed at a particular issue (for example, enhancing levels of engagement), often differed in some of their important features. Nonetheless, the interview materials and the interventions developed by these teachers, make it clear that a set of ideas were regularly drawn upon in particular combinations. It is our interpretation of this set of key ideas that we use to organise our reporting of the interventions.

We stress that these key ideas represent our interpretation, not because this interpretation is not closely based on the data - it is - but rather to indicate that other, perhaps more immediately recognisable, headings could have been used (for example, some teachers focused heavily on using different materials, some on changing the classroom organisation of work, and so on). Our goal, however, was to develop some notions of what the teachers were trying to get at, and what the fundamental ideas were that they were trying to use to describe and change their understandings of literacy learning and the special needs of boys.

## A model of practical repertoires

We analyse the classroom interventions of Phase 2 of the study in terms of their contribution to expanding three repertoires of practice (see Cazden et al 1996; New Basics Technical Paper available at http://education.qld.gov.au/corporate/newbasics/html/library.html\#techpaper).

We define a 'repertoire' as an orchestrated set of capabilities and dispositions for acting purposefully in the world. For the purposes of this study a repertoire comprises sets of:

- management procedures: knowledge about how to manage a situation, what can be done with the materials, people and tasks that any setting presents (the know-how);
- reasoning practices: ways of thinking about these procedures and how they relate to other comparable tasks and settings (the theory); and
- shared norms: knowing about and working with what a culture considers normal, proper and 'good' about these management procedures and reasoning practices (the ethic).

It is clear that various constructs of masculinity are implicitly involved both in teachers' interventions, and in the ways in which these interventions were taken up in classrooms. When we talk about 'repertoires of practice' to refer to the social practices of literacy, therefore, we are at the same time talking about the repertoires of practice that boys engage in as they negotiate and navigate their lives as masculine subjects. That is, what 'repertoires' - what management procedures, reasoning practices and shared norms - do boys draw upon at school, in their communities and families, and in their peer groups, as they 'practise', act on and develop their membership of the categories 'male' and 'student'? How do repertoires of masculinity impact upon repertoires of practice for school?

Butler's (1990) work on gender as a 'performance' emphasises the way in which masculinity, for example, comes to be recognised as a set of conventionalised activities within a regulatory frame. This is important as we consider these 'repertoires' of practice for boys. It provides a framework within which to interpret boys' and teachers' actions, and within which to offer theoretically and conceptually innovative ways of progressing literacy education towards a more sophisticated and dynamic set of understandings and strategies.

## About repertoires

The notion of a repertoire is intentionally analogous to learning to play a musical instrument. Developing a repertoire involves increasing familiarity with how the instrument can be used for producing notes in sequences, with particular sonic effects; how the learner can think about how the instrument works, what it can and cannot do, and how it is normally and conventionally used; and how its pleasurable effects can and should be used. To develop a repertoire in any field is to develop some control over a range of activities over which a person has some control. While excellence in any field can be demonstrated in one piece or genre or performance only, mastery of a repertoire is demonstrated in effective performance across a range of pieces and settings. In any repertoire, the sources of learning, the criteria for what counts as effective practice, and the arenas in which the practice assumes significance are primarily social:

Being human is a set of techniques you have to get good at like tolerating bores or playing the harmonica, and you cannot do it on your own. (Eagleton 1996, p. 109)

Because this study focuses specifically on the literacy needs of boys, repertoires are examined in terms of the knowledge and constructs of masculinity implicitly involved in the proposed and actual interventions of Phase 2 of the study, including how boys negotiate and navigate their lives as masculine subjects. 'Growing up as a boy’ involves 'getting good at' a set of techniques learned in social contexts with other men and women. It is in this sense that the repertoires we describe below are thought of as social: however solitary their performance or practice, however individualised their instruction or assessment, they come from the surrounding communities of practice, ethic and language, and are aimed at the enhancement of people's social lives.

## The three repertoires of practice

Analysis of the interviews with teachers in 24 schools (see Chapter 5) and the proposed and actual interventions in the 12 schools of Phase 2 of this study revealed three kinds of repertoires, the development and expansion of which were seen by teachers as keys to advancing boys' literacy achievement:

- A repertoire for (re)presenting the self deals with the ways in which students, with a focus on boys, can experiment with a range of possibilities for (re)presenting themselves in the classroom, and with acceptable ways of conducting their presence and activity within the school. An understanding of the ways in which masculinity is 'performed' and 'enacted' through the body is essential here if boys are to extend their repertoires of the self.
- A repertoire for relating covers the social relations of school work, including the extent to which students are allowed to adopt various positions of power, authority and agency in the classroom, including greater latitude in the selection of materials, the forms of tasks, the organisation of the work, and the means of assessment. It means addressing the ways that masculinity endorses and authorises particular relationship modes, and how these modes can be extended and broadened. Inevitably, this repertoire will have close links with the expansion of repertoires of culture for boys and with repertoires for (re)presenting the self.
- A repertoire for engaging with and negotiating the culture entails looking beyond standard school work to literacy-related materials from other cultural sites and formations, including contemporary commercial youth culture, integrating a wide range of modes of expression (oral, written, electronic, musical, visual, and so on), and cross-cultural or imagined (for example, fantasy) settings. For boys it also entails negotiating the hyper-masculine world, along with what it means to be male in such a world, and the meanings and ways of being constructed through such a world.

Most of the teachers, whether in their interviews or through their classroom interventions, appreciated and worked on the interrelatedness of these repertoires. They understood that extending one repertoire usually had consequences for the other two. For example, broadening the third repertoire by introducing electronic modes of expression changes the ways of relating in the classroom (the second repertoire) and the ways in which individuals can present and incorporate themselves, their interests, dispositions and skills (the repertoire for (re)presenting the self).

To facilitate their smooth running, schools encourage particular forms of selfpresentation so as to deal equitably and productively with large numbers of learners from many different cultural backgrounds. To be successful students, young people need to learn the institutionally preferred ways of looking, moving, talking in private and public, having certain customs and habits, displaying certain kinds of interests and dispositions and not others, and so on. Not all school students can relate well to these 'demeanours' or forms of identity. They may not understand their significance or be equally well-practised in their demonstrations, in which case their demeanours and expressions of identity can be taken to indicate misbehaviour or, at best, disengagement.

Further, it is argued in the research literature on boys and literacy (for example, Rowe 2001) that an important source of difficulty in boys' literacy learning relates directly to matters of self-esteem. Many of the teachers who developed the interventions of Phase 2 of the study appeared to use the notion of self-esteem to explain a range of behaviours including non-compliance, lack of interest and unwillingness to perform in class. These teachers set out to offer students, especially boys, opportunities to display versions of 'being a student' that would draw praise or, at best, not draw disapprobation. It involved setting aside normative expectations about, for example, what was or was not 'mature' behaviour and 'showing off', and extending opportunities for students to display capabilities and dispositions beyond the normal purview or tolerance of institutionalised schooling.

Managing the body is an important consideration in literacy education. Learning to read and write at school is predicated on students learning to adopt particular 'reading and writing demeanours' such as holding books and pens in certain ways, sitting in a 'literate' posture and operating the keyboard and mouse in a particular fashion (Luke 1992). These attributes are part of learning to be a member of a literate community, just as surely as learning the codes, meanings, functions and critiques of textual materials; and these attributes intersect with behaviour-management imperatives for school, are part of being a 'manageable student' and so have a moral aspect violations are accountable. Studies of classrooms (for example, Freiberg \& Freebody 1995; Freebody \& Freiberg 2000) have shown that teachers of young children work hard to have them appreciate the relationship between the ways in which they position their bodies and the quality of their reading and writing.

Many of the teachers who participated in Phase 2 of this study aimed to enhance the performance and engagement of boys by finding ways of increasing the latitude given to them - of offering new ways of 'being a boy student'.

## Repertoire for relating

Many of the teachers in Phase 2 of the study stated that they found boys' classroom relationships to be different from those of girls. This was described in terms of boys needing more activity, being less civil in their exchanges, less facile at working collaboratively, less compliant when not interested, and more sensitive to authority moves on the teacher's or other students' parts. It was often put to us that the classroom and the school did not give boys sufficient latitude to:

- choose what to do;
- do it as they wished; and
- work together with things rather than on printed materials.

Many teachers who spoke about the importance of expanding the repertoire for boys to engage with the culture (the third repertoire) saw boys as less willing than girls to engage with materials in which they were not strongly interested. While girls may find school materials and tasks uninteresting, they tend to comply with teachers' directives whereas boys are more likely to resist the teacher's authority to set tasks and materials.

The varied ways in which young people relate to people and activities out of school are seen to reduce to a narrow band within the school context where they spend 30 hours a week. Many of the teachers in Phase 2 of the study attempted to expand the ways in which students could relate to each other and to classroom activities.

## Repertoire for engaging with the culture

Many boys' apparent lack of engagement in school work was named by the teachers in Phase 2 of the study as the target of their interventions. 'Lack of engagement' was attributed to causes ranging from many boys' need for higher physical levels of activity than are found in the usually sedentary classroom, to the representation of boys' culture in the popular media as sometimes anti-establishment or anti-school. The teachers in Phase 2 of the study aimed to expand the students' repertoire for engaging with the culture through, for example, relying less on traditional materials and activities and more on what they generally described as 'real-world' work.

Schools have traditionally taken it as one of their major goals to develop students' knowledge and competencies within discipline-based curriculum domains such as science, mathematics, the arts and history, which have evolved over time and represent powerful ways of understanding and acting on the world. However the introduction of 'real-world' materials and activities into classroom work was regarded by many teachers as central to improving boys' literacy learning. Boys, it was often argued, need to be engaged (or sometimes could only be engaged) by resources from outside the standard school context.

Figure 6.1: Materials and tasks of the 'real' world and of the school world

| Features of the 'real' world | Features of the school world |
| :--- | :--- |
| Physically active work | Sedentary work |
| Rapid, uneven flow | Slow steady flow |
| Enjoying and using materials | Summarising and commenting on materials |
| Tasks that are materially consequential | Tasks that are undertaken for the teacher's satisfaction |
| Work assessed for its material efficacy | Work assessed for its textual and factual correctness |
| Collaborative work products | Individual work products |

Increased reliance on 'real-world' materials, it was suggested by some teachers in Phase 2, met the need, perhaps keenly experienced by some boys, to be engaged in activities that are genuinely 'contemporary' - and to look and act in an evidently contemporary way. As shown in the 'Gender and schooling' section of Chapter 3, boys are taken to consistently demonstrate a functional, instrumental view of schooling, and a preference for useful, workplace-related learning. And as indicated in the 'Boys' engagement with literacy' section of the same chapter, many boys do not apparently respect or enjoy literature and traditional forms of reading and writing. In response, some teachers draw on a range of materials from popular culture, or allow students to use such materials, as the bases for literacy lessons.

However, popular culture is built around commercial activity directed to children and young adults. A significant part of its attraction is associated in the current youth marketplace with anti-establishment, anti-authority and, by implication, anti-school discourses and trappings. Intergenerational confrontation in appearance, language, demeanour and values is marketable. It offers young people repertoires (how to do things with things, how to think about things and what to value and what not) that verge on 'taboo' for parents and teachers. Bringing the material artefacts associated with those repertoires into the classroom to form the bases of 'lessons in literacy' may well be to convert its cultural purposes to institutional ends with consequences less than (or other than) intended.

Further, as a marketing attribute, many popular-culture materials, and the repertoires they support, exploit a 'hyper-masculine' world characterised by violence, misogyny, racial stereotyping and other forms of hostile social behaviour. This moral and ideological extravagance constitutes part of the youth appeal.

So it is critical to ask three questions:

- How can schools simulate and reconfigure out-of-school activities and render them amenable to the demands of institutional curricular work?
- How can schools use these out-of-school activities as platforms for a renewed engagement with the traditional disciplinary knowledge systems on which syllabuses are based?
- How can schools deal with the discursive and ideological aspects of the repertoires implicated in and reproduced by these activities?


## Expanding repertoires for (re)presenting the self

## Classroom vignette

In the south of Tasmania, in a school characterised by the low socio-economic status of the families which it serves, a year 2 and year 6 teacher worked together to engage boys more fully with literacy learning through drama.

In the year 6 'all boys' classroom, the teacher facilitated a role-play drama focusing on the re-enactment of schooling as it was likely to have been experienced by students in the year 1900. To achieve this goal the boys were involved in researching historical accounts of schooling practices; searching for, and producing their own, historical artifacts and costumes; and locating materials necessary to transform their classroom space into a convincing turn-of-the-century classroom. The boys and their teacher lined the walls of their classroom with corrugated cardboard, coerced the desks into neat rows and made a visible display of ink wells, copy books and a cane along with a range of other artifacts that attested to the efforts they had made to accommodate their re-enactment of the historical moment.

The boys and their teacher began their drama in full costume and, according to the teacher's report, the whole class was absorbed for periods of up to three and a half hours at a time - a commitment well in excess of widespread claims that boys cannot concentrate for extended periods. In the teacher's view, drama was valued not only as a discipline of study in its own right but as a process whereby boys learnt to plan together and to collaborate, to listen attentively to one another, to speak confidently in front of others, to read and research topics via print-based texts and electronically mediated global resources, and to view the world through different perspectives, through critically literate frameworks. In this year 6 classroom, the medium of drama was also used as a springboard to boys' reflection on experiences that they had enacted and 'lived' through role-play and as a source of expressive writing.

In the teacher's observations, the use of drama with her class was unquestionably a successful strategy for engaging boys both emotionally and intellectually as the boys 'just loved it'. Drama was an obvious link to improving reflective writing as evidenced in the extract from a text written by a boy who, in the teacher's judgment, would not have written so expressively without the experience of the role-play:

> It was great to be able to study the unit on 1900. Tuesday came and we sang 'God Save the Queen' and saluted the flag. Then we had to be inspected. I had been working in the potato fields and had dirty nails. I got my head bitten off by the teacher. We marched into class and started work. We had to say our tables, which I found boring. We read the tables off the board but I could not get my eye off the cane. It looked like it was staring back as if to say 'I'll get you'. The bell went. I thought, 'thank goodness'. I said to my friend, 'I can't take much more of this'. I was hot and scared as we came back into class. The cane was still staring at me. Sweat ran down my forehead. Then the inspector walked in. Things can't get any worse, but they did. Oh they did.

In the nearby year 2 classroom the collaborating teacher introduced drama to her mixed class of girls and boys with similar success. Year 2 students were inducted into a drama that emerged from competing claims about economic progress and ecological sustainability associated with building a resort in a country town. With the help of their teacher, year 2 students identified and developed their characters, lived out the conflict of interest among pro- and anti-development protagonists and, in the process of enactment, produced banners and wrote persuasive speeches that they delivered orally as the tensions mounted and the drama climaxed. With a log of committed experiences and exposure to persuasive argument, students investigated how language was used to create a particular world view and wrote enthusiastically in conference with their teacher at the end of the drama activity. The year 2 teacher provided a convincing record of improved writing from her class including boys identified earlier as low literacy achievers, and from one boy clinically evaluated as having an additional complication of Attention Deficit Disorder.

The approach to intervention taken by these two teachers is underpinned by a common belief among teachers that if they are to engage boys more fully in literacy learning then they must work with their observations and understandings about boys, and with particularised understandings about the boys they teach. Almost every intervention strategy attempted in this project began with a set of observations about the problematic ways in which boys presented themselves in classrooms and the association of boys' classroom practices with their literacy outcomes. For instance, as detailed in Chapter 5, many teachers began with the judgment that boys as a group found it difficult to accept the inevitable 'artificiality' and passivity of classroom literacy work or to accept the physical restraints of the classroom. They also argued that boys in particular required a clear purpose and relevance for engagement in literacy tasks and preferred 'hands-on', practical literacy tasks. To this extent, we are persuaded that various intervention strategies trialled by teachers in this project were driven by a fundamental commitment to the idea that boys' sense of self as male subjects is deeply implicated in literacy learning outcomes.

Given their observations and understandings about boys' sense of self, most teachers' interventions appeared to be aimed at producing a more comfortable fit between the literacy pedagogies enacted in their classrooms and boys' enactments of themselves as masculine subjects. In meeting this challenge, it seems that many of the strategies implemented by teachers were underpinned by a common investment in widening the range of acceptable ways in which boys might present themselves in literacy classrooms. To this end, teachers sought to improve boys' literacy learning through all that they knew about boys - through engagement of their bodies, their interests, their preferences, their opinions, their cultures, their emotions and their sense of self as learners.

## Intervention strategies

In this section we document various ways in which teachers worked towards the transformation of boys' literacy experiences, namely, by reconfiguring classroom literacy as active and embodied, by working with boys' choices and personal experiences, and by focusing more directly on their sense of self.

## Reconfiguring classroom literacy as active and embodied

In planning their intervention strategies, a number of teachers described their efforts as transformations of pedagogies aimed directly at making literacy learning more active and dynamic. The metaphor 'hands-on', used widely by teachers in association with improved literacy learning for boys, was inflected with a variety of meanings. Nevertheless, at the bottom line, the metaphor was interpreted as involving interventions that allowed, or indeed encouraged, more active bodily engagement of students. Use of the metaphor signalled teachers' strongly held conviction that boys' literacy learning would improve if classroom activities allowed for more fully embodied experience and expression to accommodate what teachers theorised as boys' desire for movement and action.

The bodily engagement of boys, while seen almost as an imperative, translated into a variety of interventions including more intensified use of technology, the coauthoring and co-production of magazines and newspapers, debating and oral performances, and the sustained role-play drama activities referred to in the opening vignette of this section. While teachers referred to many possibilities in the expression 'hands-on activities', the most common translation was into the use of technologies encompassing computer hardware and software, printers, audio-tape recorders, digital cameras and videos, editing suites, CD-ROMs, web pages and Internet sites. Teachers who recast their thinking in terms of providing 'hands-on' literacy experiences and of 'doing' literacy often used these terms synonymously with 'capturing' boys' sense of self through their perceived interest in technology as well as through the activity levels that the use of such technologies permitted in the process of becoming literate. As a year 2 teacher explained:

> The idea that I have developed and implemented revolves around the concept of boys as 'doers'. I felt that by targeting the active nature of the boys in my class, and involving them in a project which used several aspects of technology, that I would be able to sustain their interest levels and achieve a higher standard of work. The project needed to be motivating in order to capture the interest levels of the boys, whilst at the same time appealing to the girls.
> (SB: year 2)

At another school a year 6 teacher offered the same kind of rationale for her intervention which was based on the observation that boys in her class responded well to the 'hands-on element' associated with 'the use of technology to create texts' (DX: year 6). Other teachers in other States also believed that boys would be 'motivated by technology' because they were so 'hands-on and practical' (BM: year 7).

Teachers who employed a hands-on approach through technology reported that boys' engagement with literacy activities increased along with their personal sense of pleasure with improved outcomes. A common report from teachers was that boys enjoyed the experience of being able to present a polished product that was greatly assisted by the use of technology. They were able to use grammar and spelling checks to find 'their own errors' and to 'edit their own work'. Otherwise-messy boys were able to make their work 'look really spiffy' because, as most teachers know, 'handwriting with the boys is a big issue' (SB: year 2). In one teacher's view this was
a genuine breakthrough, particularly for boys who did not have 'beautiful cursive writing' and who, when required to resubmit their work, would never finish because they would be 'forever rubbing it out' (BM: year 3). Technology offered boys who were frustrated by teacher demands for neatness the opportunity to produce a 'polished product'. The experience offered a 'boost' and acted as a 'confidence builder' that generated greater student willingness to engage in literacy (BM: year 3). Student texts generated via the computer allowed for a more positive presentation of the self that opened out opportunities for teachers to showcase their work and to share it with the rest of the school.

While younger students were reported as enjoying considerable success in using technologies to generate illustrated stories (BM: year 3) and to provide PowerPoint presentations to assist oral performances (SB: year 2), older students were reported as mentoring the younger ones (SB: year 6) and drawing on more advanced literacy skills in the production of e-books, multimediated texts for public display, official school web pages for global referencing (BM: year 7), design of CD packages and marketing and packaging of video games within the framework of a Design Technology project (EB: year 7).

While some teachers drew on technologies to allow students more active bodily engagement with literacy, others saw 'opportunities to engage in the hands-on stuff' (MM: year 2) through the production of a class newspaper or magazine. This management procedure was based on teacher theories about what boys were like and what they needed in terms of more embodied experiences, and sometimes on substantive claims that 'boys commonly succeed when engaged in a 'hands-on approach' (ME: year 2). Most of the projects that harnessed bodily engagement through active learning experiences like these also capitalised heavily on choice and personal experience and are referred to again in the next section.

Theories about boys' need for more embodied engagement in literacy classrooms were clearly articulated by teachers who attempted to manage the situation through regular provision of role-play drama in their classes. These teachers argued strongly that boys enjoyed the performance aspect of drama and were keen to engage in the bodily movement it provided. One year 2 teacher, a fervent advocate for drama, explained that the activity allowed for physical movement and that 'many boys need such an outlet' (HM: year 2).The teacher elaborated this theory beyond the need for 'action for action's sake' to a critical link with other literate practices that sprang from the experiential base. In this teacher's observations, '[w]riting ideas becomes "easy" as children become their character' and there was an added bonus that, because children are often required to adopt an adult position, 'their behaviour during drama can improve and this can enable children to feel in control and responsible and also feel successful' (HM: year 2).

Active engagement through drama was not confined to the drama activity itself and often extended to links outside of the school. For instance, in one project that incorporated drama, the teacher encouraged her year 3 students to write letters to a local police officer 'complaining about the big bad wolf blowing down houses'. The teacher reported:

> And the kids all wrote a letter and we typed them up, so we used technology there too and they loved that ... And we got to illustrate them ... And then we sent letters home to [the police officer] who was one of the kids' dads ... So he sent it [ a response] back on official police letterhead - it was so good and the kids just loved it. And we had a wanted poster that [the police officer] had made for our door, for the big bad wolf... And the boys came into the classroom in the morning, before school! ... This has never happened! And we're reading. They sit and read. And that was like hmmmm, Wow! So, that's just exciting ... Before school they normally want to run around. But they'd be coming in and they'd be reading.
> (NL: year 3)

The success that these teachers experienced through the use of role-play drama was commonly attributed to the way that '[d]rama involves the child's thoughts, feelings and attitudes through direct experiences' (HM: year 6). In terms of improving literacy outcomes, drama appeared to operate as something of a 'hearts and minds' approach by drawing boys into a dynamic arena offering them active and fully embodied experiences and by capitalising on their high-level engagement for the production of a range of oral and written texts. Students in these classes were positioned as independent and as collaborative learners. Together with their teachers and classmates, they negotiated role-play and, at the same time, they were clearly positioned as the authors of the texts that they enacted and of the written texts that flowed from their embodied experiences.

Teachers who focused on the reconfiguration of classroom literacy as active and embodied reported considerable success in working with boys. The underpinning theory appeared to be to keep them 'moving and actively involved in all learning experiences' (DX: year 2). Whether the intervention strategies involve intensified employment of contemporary technologies, production of magazines and newspapers, or use of role-play drama, the outcome was reported by teachers from across the three States as improved engagement among boys in literacy learning. According to teachers, the reconfiguration of their literacy classroom allowed them to engage boys in more embodied ways, to harness their energies and redirect their exuberant behaviours that, in less active classrooms, might have evoked teacher concern and disapprobation.

## Capitalising on choice and personal experience

Consistent with this idea of expanding repertoires for (re)presenting the self, some teachers argued that their interventions must harness boys' interests by drawing on choice and personal experience. Here, choice and personal experience were theorised as critical aspects of the self, just as embodiment was theorised in relation to the self.

Such ideas are not new to literacy pedagogy, however, teachers claimed that they had not always found ways of putting them into sustained and principled practice. At the point of engagement with this project, a number of teachers argued that this kind of strategy could prove particularly effective in engaging boys since, in many respects,
boys were perceived to be more self-interested than were girls. Those who followed this form of intervention argued along these lines:

> Rather than here's a topic, here's a piece of paper, write about it, I mean - I don't think I'll ever do that again ... One thing I've found, especially in their speeches, the moment we said to the boys the choice is yours, you can choose any persuasive text that you want, that really broadened their interest as well ... Normally in year 7 the speech topic was a current event. They had to research a current issue and produce a persuasive speech. But now, [they can choose] absolutely any topic. I mean ... they did, 'Should year 7 do speeches?'. They did, 'One footy team is better than another one'. They did, 'Holden versus Ford'.

(BM: year 7)
Teachers could see that by starting with personal experience and by allowing for choice that boys in their classes would have something at least to speak and write about which, according to teacher reports, boys often complained they did not have when the choice was not theirs.

With the struggling boys in my class I felt there was a real need to relate the development of literacy to their personal experiences ... They really seemed to enjoy relating it [the literacy activity] to themselves. They really enjoyed writing about their own ideas. I can't recall them sort of saying 'I don't have anything to write about'. So I think it was a good avenue for them to develop their writing skills. But then again the girls did as well. I suppose it was just a stimulation for them to write.
(DF: year 2)
While this year 2 teacher found boys' narrative texts disjointed and difficult to work with, from her account, there was ample opportunity for her to work with boys on the finer technologies of text production when their texts were based on their personal experiences.

I just find that focusing on their personal experiences we were able to really talk about tense, talk about sentence structure, and sequencing and all those sorts of skills of writing, that eventually will lead them to narrative writing.
(DF: year 2)
The year 6 teacher at this school worked with the same management procedure to improve literacy outcomes for boys:

I thought that this would be effective for my targeted group as they could choose a topic that they were interested in and therefore they would be more motivated to do research.
(DF: year 6)

In some schools, teachers focused on students' creation of class magazines and newspapers. This medium too was introduced to broaden student choice and to cater to individual experience as the basis of text production. The focus here was on 'personal interest and experiences as a motivational strategy' (MM: year 6). Teachers working with this medium explained:
> [Students] could write about topics they were generally interested in and that they had a lot of background knowledge about. Ideas flowed easily and they were not stumped for ideas to write about. [This applied] even to the children who in previous writing lessons found it difficult to find a starting point - not to mention actually enjoying and completing a writing activity. (MM: year 6)

... when we brainstormed what was going to go into the magazine with the children it evolved from there. So I went in with not many preconceived ideas of what would go in ... What it ended up becoming was adventure and action instead of doing a project - profile on ourselves individually, hobbies all that stuff - Boring! We decided, well, we'd do our greatest adventure ... you sort of come up with an idea and ... the children take on ownership and I think that's where they get a bit of motivation as well.
(ME: year 6)
At a school where both year-level projects revolved around choice and personal experience as a means of engaging boys, even though they adopted different mediums for expression, both teachers spoke about developing a 'sense of ownership' among the boys (ME: year 6 and ME: year 2). From the year 6 teacher's perspective the critical point concerned 'being aware and accepting what boys are interested in' (ME: year 6).

Another variation on teachers' efforts to expand repertoires for (re)presenting the self involved students in speaking and writing their opinions on a range of topics such as movies, music, video games, magazines, sport and school issues (OT: year 2). Within this framework, writing was viewed as a genuine expression of ideas rather than as something that had to be done to satisfy the lesson requirements:

My view is that since they are fluent at discussing opinions, the transition into writing would be more apparent ... I chose opinion writing as the boys in my class love to discuss the latest books and games with each other and these discussions are rich in oral descriptive language and exhibit quite complex grammar and syntactic structure. (OT: year 2)

In one all-boys class that was run by a male teacher in a coeducational school the focus on personal experience translated into an up-front and personal investigation of masculinity - of the meanings associated with being a boy at school - a man in the
wider community - a male subject as defined within social and cultural contexts. This teacher harnessed boys' personal interests in their experiences of living life as a boy as a starting point for literacy activities. He brought to their attention for debate and discussion the privileges and limitations associated with living life as a male and the problematics of gender and power relations that circulated among them. To this end the boys were sometimes engaged in discussion about how particular versions of masculinity were produced and disseminated through popular cultural texts like Hurricane, Braveheart and Remember the Titans. The boys were invited to deconstruct and to challenge male stereotypes and to interrogate the texts in ways that would help them understand the processes wherein they adopted their own positions as male subjects and the alternatives that might be available to them. At other times the teacher used research reports and statistics about boys as a catalyst for discussion:

> Challenging the boys with information and research has been my greatest triumph. This is what someone is saying about boys. How does it refer to you? What are you doing to refute it? What can you do to buck the trend?
> (SB: year 6)

The teacher reported that 'confronting information of this nature triggered excellent writing and discussion'. Boys were willing 'to discuss and write about masculinity' because they had lived it. They refined their literacy skills along with their justification of opinions as they moved beyond 'grunts' to well-articulated expressions based on experience and understanding (SB: year 6). In the opinion of one of the executive members of the school's staff, these kinds of strategies were successful because the teacher was able to emotionally engage the boys:

> I think one of the key ways [the teacher] has managed to engage those boys is through engaging their emotions having them become emotionally involved in things that are directly about or related to them. I think it's been a feature of what's transpired in that class.

(SB)
When teachers reflected on the success of their interventions they were generally very satisfied with the changes in their pedagogies and positive about associated changes in boys' engagement and performance in literacy:

> My teaching has changed dramatically. I use fewer overheads and worksheets. I rarely teach grammar and punctuation in a vacuum - I integrate them ... Many activities relate to the students and their interests ... A constructivist approach is important ... (it) enables students to apply new information to existing knowledge.
> (OT: year 6)

At one school, a teacher's focus on widening student choice resulted in the librarian being recruited as a co-researcher in the project to ensure necessary support for students as they researched individualised topics. One of the benefits of working in this way was that it offered students the opportunity for extension:
> [One] student selected 'Ancient Egyptian Gods and Goddesses' as his topic for study. He selected this topic because his cousin has a collection of Egyptian statues which have always intrigued him. This is a topic which would not have been covered if he had not been given a personal choice ... He has had to read and comprehend at levels beyond what would have been provided to him in class reading sessions and so this project has extended him as a reader.
> (NL: year 7)

In this same class the teacher reported that, for a low-achieving boy with serious behaviour problems, the benefits of widening the range of acceptable ways in which he might present himself were 'huge'. The boy, who had a history of conflict with schools and adults, took the chance to use the Internet and the library and to engage productively in literacy activities when he understood that the choice of topic was his.

> This student selected to study the wreck of the 'HMS Pandora' ... He has visited the Maritime Museum in Townsville on several occasions and has been intrigued by the museum's display. He had no hesitation in selecting this topic and felt he had a lot of prior knowledge and so was really motivated to read and write about it and talk to me about it. (Our previous conversations had always been initiated by me and his replies were usually monosyllabic or a series of grunts.) He knew a lot more about this topic so he was the 'expert' while I asked the questions.
> (NL: year 7)

By capitalising on choice and personal experience in these ways, teachers found a common management procedure for expanding the acceptable ways in which boys could present themselves in their classrooms.

## Focusing on boys' sense of self

Through their project reports and at interview, teachers made frequent comment about the importance of focusing on boys' self-esteem. However, the term was more often directly equated with boys' confidence in themselves as learners at school and as literacy learners in particular than with a globalised valuing of themselves as human beings. As one teacher observed: "'Saul" is a low-ability reader and writer, however, he exudes confidence in social situations' (ME: year 2). It is our interpretation that the use of the term has been appropriated from psychology and, with a shift in meaning in teachers' theorising, has come to signify teachers' specific concerns about boys' lack of confidence in tasks that they do not engage with or perform well. For while teachers acknowledged the importance of self-esteem to learning at school they also acknowledged, among a range of positive identifying features, that boys were often actively engaged in communities outside of school where they were highly valued; that they marked out their own territory on the sporting fields where displays of masculinity were rewarded and celebrated; that they were advanced in their uptake of technological forms of literate practice which appeared to be a source of personal engagement, reward and pleasure; and that they
could see many privileges associated with male status in life after school that may have overshadowed literacy achievement at school. Nevertheless, while they were in their care, teachers were concerned with improving boys' views of themselves as learners, which they often thought to be lacking.

In this respect most of the intervention projects, whether they specifically mentioned 'self-esteem' or not, aimed at improving boys' sense of self as literate subjects and as classroom learners. So, for instance, while drama could be used to offer boys embodied experiences it was also aimed at improving their sense of self:

> Drama helps children to develop greater confidence in their ability to use language - speaking, listening, reading and writing. Literacy needs to be taught in a context that values and contributes to the child's self-respect, respect for others and a sense of social responsibility.
> (HM: year 6)

For those who used these management procedures the rewards appeared convincing:
Self-confidence, self-esteem improved as their literacy engagement improved and as this happened behaviour problems lessened.
(HM: year 2)
When it came to articulating specific management procedures, some teachers were convinced that working positively with boys was a key element in success:

> I think you've really got to manage and handle boys' classroom behaviour ... and I think that is really, really important. It's something that perhaps we overlook and I feel that there's a way of getting the best out of boys and it's not getting stuck into them or nagging them or whatever - you've got to cajole? It's to do with their ego ... Sometimes you have to ignore things in order to get something out of them. You know, if you pick them up every time they do something ... sometimes if you're over the top and you're down on them every moment, every minute of the day, you'll get nothing out of them.
> (NL: year 7)

It's [the solution is] behaviour management full stop really. It's, you know, don't embarrass them ... you don't show people up. You don't put them down, you don't drag them out and make them sit at the front of the class ... you build a rapport with children ... you treat them like, a human. (ME: year 6)

This theme ran deeply through some teachers' views as they theorised the links underpinning affective dimensions of the self, boys' performance at school and their literacy achievements:

> I just think success breeds success ... I had a group of boys ... there really were some dreadful boys in there, but I kept thinking, now you know what your philosophy is, find the nice thing in them, find something, find it.
> (HM: year 6)

For this teacher, a fundamental principle driving her management procedure and ethic of care was to treat every boy in her all-boy class as she wished to be treated herself. Her advice for working with boys was to offer 'lots of praise, positive reinforcement' and to avoid the situation where boys would need to be punished. In this teacher's view, negative interactions were to be avoided 'absolutely':

> Now, the way it works is, I say, 'I love the way this table's working. Five points'. But it might have been that someone over here wasn't really on task, but rather than go, 'Come on get on with your work', I'll go, 'Five points, five points there'. What does this table do? Immediately they're back [on track].

> Now one teacher started fining them, took the points off them. So, how did they come back? 'So and so lost a point.' You know, the old shoulders were down, so I said, to [the teacher] what if you gave, instead of fining?
> (HM: year 6)

According to this teacher, 'their self-esteem, their confidence' were integral to boys 'having a go ... if they feel good about themselves, well, they're going to have a go' (HM: year 6). In another teacher's view, positive behaviour management must range beyond classroom activities to affirming boys' sense of self and letting them know 'that you as a person are interested in them as a person, that the relationship is not just well, okay, I'm going to see if you can do these ten sums or write this' (NL: year 7).

At the core of these various intervention projects was teachers' investment in enhancing and preserving the integrity of boys' sense of self as experienced at school, and in literacy classes in particular.

## Summary

The challenges of reconfiguring classrooms as more lively and embodied spaces, capitalising on choice and personal experience and focusing on boys' sense of self were seen to be critical strategies for teachers to consider in working on the boys and literacy agenda. A common goal underpinning much of what teachers trialled during the intervention phase of this project was to improve the fit between practices associated with masculinity and practices associated with literacy learning. This was to be achieved by widening the range of acceptable ways in which boys might present themselves in literacy classrooms. While teachers worked in different ways, drawing on different management procedures, most recorded considerable success in engaging boys more fully in their classes through the intervention strategies that they chose.

## Expanding relationship repertoires

## Classroom vignettes

While most of the 24 interventions implicitly addressed ways to broaden boys' relationship repertoires, two classrooms within one of the Phase 2 schools made relationship work quite a strong focus in their classrooms. The school was a provincial coastal Queensland school, drawing upon a predominantly white anglo student background. The school prided itself on its literacy work, and had been showcased by Education Queensland in 1999 for its gender and literacy programs. The teacher librarian was actively engaged in assisting the literacy teachers, and worked closely beside them on this project.

The two teachers - a year 3 teacher and a year 7 teacher - worked closely together, and had similar philosophies about working with boys. They had both been involved in the gender and literacy work in 1999. The key to much of their work lay in their approach to the students, and in the particular ways they deliberately democratised their classrooms and worked on enabling boys to become active researchers.

## Vignette 1: Using drama to extend relationship repertoires

The year 3 teacher described herself as an early childhood teacher, who had always been aware of the need to cater for the 'whole child'. However her work on gender and literacy had convinced her that boys did bring different backgrounds with them to the literacy classroom; that they needed to be more actively engaged in learning than did girls; and that they were 'visual' learners. Given boys' leisure pursuits, as we have indicated in Chapter 3, this active focus - and 'visual' appeal and competence are highly understandable.

This particular teacher started with an understanding of the importance of giving boys a sense of ownership and control over their learning - if they were to become active participants in the literacy classroom.

> My title of my project should be 'Positioning boys as active learners in their classrooms'. The conceptual rationale would include the fact that through surveying the students as to 'what it is they want' it became the first step towards engagement. Boys were then involved in the decision-making, having a 'voice' to state how they would like to learn in the classroom. They were able to become a more democratic citizen.

The teacher based her 'democratising' program around drama. The students used dramatic activities and devices like role-play, puppets and masks in the task of critically reading and rewriting a familiar genre, in this case, 'fairytales and writing stories' that offered 'traditionally gendered ways for boys and girls'. They chose their own story to work with. The use of drama, in this case, was a deliberate strategy aimed at letting the students participate in the classroom activity as a 'character' - not as themselves. For boys who lack relationship repertoires in terms of participation in school settings, this can obviously be a very effective device. The boys feel less
inhibited when speaking and acting in role, behind a mask, or through a puppet. They are not as exposed and as vulnerable as they are in many other forms of public presentation: a very real consideration in terms of addressing the impact of masculinity on boys' positioning within schools. Drama provides a means to speak and act outside 'the self', as we discuss in 'Expanding repertoires for (re)presenting the self' earlier in this chapter. Through drama, boys can gain an opportunity to participate more freely as speakers and actors in the classroom - an opportunity they may not have had without some form of scaffolding to support them in the first instance.

The year 3 teacher was very pleased with the way the drama unit worked. She noticed not only improved motivation to read and write, and improved oral language reflected in writing skills, but a strong improvement in the way the students perceived themselves as 'democratic decision makers'. She felt their confidence was markedly increased across all literacy abilities. In her reflection on the project she observed how important the shift in relationships had been within the class as a result of the work, claiming: 'I would strongly emphasise the democratising of the curriculum as the key to empowering students to want to learn'.

## Vignette 2: Using student choice and multimodal presentation to extend relationship repertoires

The year 7 teacher titled her project: 'A personal study project: Student-centred learning'. She suggested in her rationale that she believed that 'by positioning boys and girls as active researchers in a collaborative classroom, students will more willingly assume ownership of their own learning'. This teacher had a strong background in gender and literacy, and considered the selection of subject matter, the need for an 'active' classroom, and alternative modes of graphic/visual presentation modes to be important when working with boys. She was particularly keen to tap into boys' interest in, and competence with, technology, as a way of giving them a sense of confidence and authority as learners. Technology competence is often part of the repertoire that boys bring with them to school. By working with technology, teachers give boys a chance to bring this competence with them into the classroom, and to use it in positive ways to extend their school repertoires as learners and participants. The use of technology in this way can provide the first necessary step of confidence that might allow some boys to begin to participate in the literacy classroom, and to consider themselves as literacy learners. They can make 'real-life' knowledge relevant within the school context.

In this project the teacher wanted the boys to be given the choice to plan, research and present a project for public viewing, on a topic of their own choosing. Most of the boys chose topics related to their hobbies or interests outside of school. They had to monitor their own progress by keeping a learning log, and to self-assess their finished product. The teacher's expectation was that they would present their completed work 'so that information is communicated using oral language, printed text and multimedia presentations'. She encouraged the students to do their research using CD-ROMs and the Internet, and made sure they had access to a scanner, a digital camera and email facilities. They presented at least parts of their project using PowerPoint, with graphic and sound components.

The nature of this project meant that the teacher entered into what she described as a 'consultative/ negotiation mode' with her students. Her teaching became less teacherdirected, and the students became 'the experts'. It was their topic, their selection of information, their choice of presentation. The students also took on a major role in classroom management for the project - notably planning seating arrangements, organising computer use, and allocating time for various activities. While some of these management issues did not work as effectively as the teacher would have liked, she reflected on ways to improve those aspects of the unit for subsequent years. Overall, the teacher had constructed a classroom where students felt they did have ownership of their work: where they had become 'active researchers', but where they had also learnt how to operate collaboratively. As the teacher remarked, by the end of the unit, 'most students are eager to help each other'.

By focusing on student choice, by insisting that the boys monitor and structure their progress on the independent task and documenting it weekly, and by providing a multimodal presentation goal for the task, this teacher - like the first teacher - made it possible for the boys to learn how to become 'learners' and 'participants' in this literacy classroom. She scaffolded their shift into these roles, and through her own sensitive monitoring of progress (for instance, she wrote a weekly reply to each of their weekly 'learning logs') she was able to help model and redesign approaches to 'learning' and 'participating' for them. The boys worked with repertoires they had knowledge of - popular culture and 'real' pursuits, as well as knowledge of technological modes of collecting and presenting information - and from these stepping stones of confidence and authority, were able to move into new repertoires new sets of relationships that would serve them well as learners and participants in the literacy classroom.

## Teachers' observations

As we indicated in Chapter 5, teachers interviewed in Phase 1 of the study made many observations about the restricted repertoires of practice that boys seemed able to draw upon in their management and theorising of classroom expectations and activities, and relationship repertoires were a common feature of these observations. For instance, teachers observed that many boys experienced difficulties constructing effective and positive relationships with teachers and other students in the classroom: they appeared to lack the management procedures (the 'know-how') for the school context, the reasoning practices (the 'theory') these new contexts required, and the shared norms (the 'ethic') that such classroom contexts require.

Some of the teachers described these relationship issues as 'selfishness'. Boys were described as often being rude, inconsiderate of others, and obstructive in their classroom behaviour.

> They're all very disruptive. They're all very talkative and they're selfish. They want their own agenda.
> (VM: year 6)

They also observed that boys demonstrated a general lack of concern for the classroom community:

Boys don't want to please anybody. That's generalising of course. I think boys are quite ho-hum about pleasing. (HM: P)

Teachers generally explained these relationship difficulties that boys faced in biological, psychological and social terms. On the one hand, some teachers considered that boys' biological development was slower than girls, and that this made them less able to operate within the relationship demands of school contexts.

> Because sometimes I think it does click. They mature. Sometimes they take a while to catch up to the girls, and then later on, not all of them, it just clicks. It's a different developmental schedule. (MM: year 6)

Teachers also considered that another reason for boys' limited relationship range was that they were sometimes psychologically disadvantaged in their access to a positive range of male role-models. They too often encountered examples of ways to relate to teachers and to schools that were unhelpful for them.

> And behaviourally a lot of these local kids are, you know, their role-models, males especially aren't good, so there's a lot of really bad male stuff going on, very disrespectful to staff.
> (DZ: year 2)

Several teachers suggested that other relationship models were not always easy for boys to encounter, and were not often important influences in their lives. One of the schools described how they had made a deliberate effort to improve this situation, and argued that other schools could gain from adopting their approach.
> ... you need more people in schools who have an approach like we have ... When the boys see a male who values things like literacy, respect, being pleasant, being respectful of other people and, you know, role-model... when they see a person who actually takes an interest in them and they're male.
> (HM: P)

Social explanations provided the third set of explanations teachers offered about boys' limited relationship repertoires. These comments focused predominantly upon the influence of constructions of masculinity on boys' relationship repertoires. Teachers observed how dominant forms of masculinity were often in conflict with the relationship repertoires normally expected within the classroom. They observed that, in some of the communities in which they taught, ideas about what it meant to be acceptably male were marked out very clearly in talk and practice.

In this area there really is a definite male idea of what maleness is ... I'm sure it's got to do with the way we construct gender in families ... Well it's, there's a lot of that man type stuff about expressing your emotions, about who reads, about what you play, about participation in boy sport,

> you know football. There's an expectation that this is the kind of person I'm going to be, if I'm a boy in this (rural area) ...
> This is fairly traditional in terms of gender definition - fairly traditional area - and I think you would find the gender stereotypes would be reasonably noticeable in that. Not totally, but there's a significant group of people whose boys would be boys.
> (MJ: P)

And this was seen to be noticeably different from girls' social behaviours and the relationship repertoires they had developed.

> My gut feeling is the social, it's not cultural, it's purely gender, is that the girls, girls tend to sit down and chat about things, and discuss, and really get into every aspect of what's happening. Whereas the boys ... when I'm eavesdropping there's a small (number) of things they discuss, and it tends to be on the level of facts and figures. If they say they don't like to do something or I don't like to read this, I don't like to read that, that's the end of the statement. Whereas the girls will say, I don't like to read or do or whatever because. So I think it's just the level on which they communicate generally. (TN: year 7)

This 'maleness' was observable occasionally in boys' fear of being 'put down' or 'shown up' in the classroom. For example, sometimes boys were uncomfortable with whole-class groups, or mixed-sex groups, and this seriously limited the relationship roles they could take up in the classroom. Teachers often attempted to counter this difficulty by establishing one-on-one mentoring, or mentoring with small groups of boys.

Often I work with boys in reading, if they've got a confidence thing or they've got a bit of a male problem, you know, not wanting to look stupid, I'll mentor them with boys.
(MM: year 6)
These different relationship repertoires observed by teachers go part of the way towards explaining boys' underachievement and disengagement in literacy classrooms.

Boys appeared to have difficulty operating as 'learners' and as 'participants' in the literacy classroom: of picking up the relationship modes necessary for both of these roles. Many of the observed behaviours of the boys - their physical disruption of the classroom; their easy distraction from set tasks; their production of minimalistic responses to set tasks; and their failure to contribute confidently to whole class and mixed-sex groups - can be associated with these relationship difficulties. Although, as we have discussed in 'Expanding repertoires for (re)presenting the self' earlier in this chapter, the particular repertoires of the 'self' that boys brought with them to school were obviously closely connected here as well.

And yet, as we have noted in Chapter 5, in other contexts boys were observed to have highly developed relationship repertoires: to be more effective than girls. They could operate highly effectively, for instance, in their community cultures.
... when you watch them in their local community, they're ... effective, in fact probably boys have more of $a$, not street ways, but being able to function in the community at a higher level.
(US: year 6)
And this expectation of being treated with authority, and with agency - through the recognition many boys received (and expected to receive) in their families, peer groups and community cultures - was often noticed by teachers. As they observed, in classrooms girls tended to be compliant, but boys would often try to adopt a more authoritative, powerful role.
> ... don't know if it's more important, I just know that I found even when I've taught years 6 and 7, boys seem to be the ones saying why, why do I need to do this. And they need a reason. (BM: year 3)

It could be argued that boys are certainly in command of a number of relationship repertoires that serve them well - in their communities, their families, their peer groups, and sometimes at school. However it seems obvious that there are particular issues associated with the relationships often on offer (and commonly expected) in the school context which make school more problematic for boys as participants. In developing their interventions to improve boys' literacy outcomes, teachers clearly took account of the need to work on expanding the relationship repertoires boys were accessing.

## Intervention strategies

The expansion of boys' relationship repertoires figured prominently - although sometimes implicitly - in many of the interventions teachers planned and trialled in Phase 2 of the study. Most of the 24 interventions acknowledged the need to expand boys' relationship repertoires and included particular strategies for this work. Several of the interventions were quite explicit about this, two of which were described in 'Classroom vignettes' at the beginning of this section.

In general, however, many of the teachers in Phase 2 built 'relationship' work less explicitly into their interventions. We argued in the first part of this chapter that an expansion of repertoires of relating would entail a reconfiguration of the social relations of school work, including allowing students to adopt different positions of power, authority and agency in the classroom, including greater latitude in the selection of materials, the forms of tasks, and the organisation of the work. However we argued there that it would also mean addressing the ways that constructs of masculinity, which endorse and authorise particular relationship modes, intersect through this work, creating points of conflict and tension.

For instance, as we demonstrated in 'A model of practical repertories' in the first part of this chapter, there are repertoires of 'being a boy' that boys learn and need in their negotiations at school, in their families, their peer groups, their communities, and their relationships with cultural texts. These 'masculine' repertoires have some obvious points of tension with the relatively typical repertoires of the literacy classroom as we described in Chapter 3. For example, boys and young men become accustomed to ways of relating that emphasise independence, resistance to authority, reliance and admiration for the physical, a reluctance to displaying emotions, an admiration for autonomy and a respect for reason and functionality. These relationship features develop ways of talking, ways of being, ways of perceiving the world. Not surprisingly, insertion into these relationship modes brings with it some discomfort and unease with the relationship modes often typical of literacy classrooms.

Consider, for example, Figure 6.2 below. How easy is it for a boy to accept and accommodate the typical set of relationships schools tend to sustain and rely upon while maintaining a masculine identity?

Figure 6.2: Typical features of school and masculine relationships

| Typical 'masculine' features | Typical 'school' features |
| :--- | :--- |
| Operate independently; be autonomous | Expect 'dependence': teachers 'own' knowledge and decide upon <br> classroom structure; expect collaboration and cooperation within <br> classroom |
| Resist authority | Respect school authority: Teachers are source of power <br> Be active/ physical: engage in hands-on, outdoors <br> experiences |
| Be passive: engage in intellectual and indoor pursuits <br> Hide emotions and personal feelings <br> Value functionality and instrumentality | Display feelings and emotions about texts and issues <br> Construct and expect tasks and activities to be completed that may |
|  | not seem directly relevant to boys |

Teachers did try to work with this potential conflict, however, as they looked towards ways of extending and broadening boys' relationship repertoires at school. As Figure 6.3 below indicates, we have clustered the strategies of Phase 2 interventions within two groups - although neither group is discreet. The first cluster is associated with relationship repertoires required of a 'learner' in the literacy classroom; the second with the repertoires required of a 'participant' in the literacy classroom.

Figure 6.3: Relationship repertoires addressed in Phase 2 interventions
Repertoire item Intervention strategies to expand the repertoire item

| 'Learner' in a literacy classroom |  |
| :---: | :---: |
| Key concepts: |  |
| Providing boys with more authority and agency with tasks and materials | Changing relationships of authority and agency in classrooms to democratise the context <br> - Working with student-selected topics and resources, deliberately using everyday, 'real-life', popular texts <br> - Focusing on 'opinions' and non-fiction, visual material <br> - Providing students with ownership of task, topic (more 'free choice') <br> - Developing 'hands-on', practical activities |
| Making learning a 'positive' experience: building in regular, constructive | Making the classroom a more 'positive' experience |
|  | - Using one-on-one writing conferences |
|  | - Positioning students as active researchers and learners, responsible for their |
| feedback and avoiding | own learning |
| humiliating learning | - Establishing student-student mentoring, and one-on-one teacher mentoring |
|  |  |

'Class participant' in a literacy classroom

## Key concepts:

Building ‘safe’ classroom environments

Constructing and insisting upon a classroom environment for speaking out and being treated with dignity and respect

- Establishing 'safe' classroom environment for sharing of ideas and opinions and building of confidence
- Establishing small single-sex mixed-ability groups for discussion and collaboration
- Establishing contexts requiring cooperation and sharing, and respect for needs and rights of other students

Providing contexts where boys receive positive

Providing for regular feedback, and establishing contexts where boys'
knowledges, opinions and contributions can be valued

- Building in positive feedback and reinforcement: e.g. rewards, competitions
- Providing opportunity for learning and presentation through multimedia
- Encouraging risk-taking by involving boys in new genres and new literacy activities
- Teachers treating students with respect and dignity at all times
- Teachers valuing student opinions and advice
- Boys producing materials for younger boys and sharing it with them
- Establishing a buddy system in the school


## Teachers' comments on the interventions they tried

## Focusing on relationship repertoires required to become a more engaged, successful 'learner' in the literacy classroom

In one of the interventions, a year 6 teacher made a deliberate effort to use texts boys selected, texts generally associated with their sporting, leisure and community interests. He considered that this shift in the selection of text type made a significant difference to boys' engagement and success in his classroom, across a number of
dimensions. It appeared to give boys more agency and authority, by allowing them to demonstrate that they, too, had knowledge worth sharing in the classroom. In the following interview extract, he explains why he felt this strategy worked so well.

Well I think one of the biggest outcomes was the high engagement, the high participation of the kids in the work that we were doing, I think that was the thing that came through the strongest for me, particularly with a couple of groups of boys, one group of boys that is very capable but is very hard to motivate, hard to engage, you really need to, they were really engaged in the activities and plus there was another group of boys who, boys and girls, who, with learning difficulties, who really could engage in what we were doing because they were bringing their own (sense) to the texts that we were working at, so I found their participation rate and their engagement rates were really high in comparison to other things that we've done in the classroom, so that was a really positive thing.

Orally, the development of their oral language was another important outcome of the, what we were doing. A lot of the work that we were doing was involving them giving their opinions and their interpretations, and that sort of language really developed as we went along to the extent where they were, could evaluate and interpret things really well by the end of it, and that language really came through. So that was something fantastic, a really positive part of what we were doing.

Just the fact that kids could bring their own knowledge and understandings to the texts that we were working with was a really, it was so valuable. They'd experienced those texts and they'd seen them, and they had the understanding there of what they were actually using, it's something they experience on a day-to-day basis. So just the type of texts that we were using made all the difference I think to how engaged they were.
(DX: year 6)
Another teacher commented on how letting the students use 'their own ideas' also allowed for the growth of positive learning relationships among the boys: that they could talk together about what they were doing, and that this had a significant impact not only on the boys' engagement with the work, but also upon the outcome.

They really seemed to enjoy relating it to themselves, they really enjoyed writing about their own ideas ... I suppose what they did enjoy doing was talking about it more than writing, more so than the girls, the girls probably tended just to sit and write quietly. And the boys tended to talk about what they were going to write about. And in that way it was
probably more of a collaborative thing, and I noticed when I did the interviews a lot of them said they liked to read with a partner and they liked to write with a partner, they seemed to enjoy that interaction together. And from that the boys that were more capable at spelling and that sort of thing were able to help the ones that were struggling a bit more.
(DF: year 2)

And the significance of the boys' feeling that they had a 'purpose' for what they had to do was acknowledged by one of the year 2 teachers as very important in developing boys' repertoires as 'learners'.

I think giving some sort of purpose to their learning experience is really important to them, for example whether it be sharing what they've done or actually having a specific focus. Whether it be sharing an assembly or something like that or just sharing within the class, they get really excited about doing a good job, so they can do that.
(MJ: year 2)

## Focusing on relationship repertoires required to become a more engaged, successful 'participant' in the literacy classroom

One of the features to emerge from the teachers' interventions was the significance they gave to 'modelling' appropriate participant roles for boys. It seemed clear that many of the teachers recognised that boys did not have either the 'know-how', the 'theory' or 'the ethic' required to become a 'participant' in many literacy events. In the following interview extract, a year 2 teacher describes how she had to show the boys how to talk harmoniously about 'opinions', and how, when she did, not only did the level of discussion improve, but she noticed positive outcomes in the boys' writing.

When we first started it there was a lot of disharmony in the room, talking about games, video games, so I spent a lot of time modelling myself, an opinion that was opposite, so they're now more tolerant towards other people's opinions as well, and that's something I didn't expect to happen but I had to build up before we even started, and just the way they are able to reason and say, oh no that's what you think but this is what I think and have you thought about that. And their attention to writing and speaking and reading different books and looking at different characters has also increased, so they're more enthusiastic about writing in general, and now that's sort of carried on to all the writing tasks we do, they're more enthusiastic about reading and they're more enthusiastic about looking into the text as opposed to oh I can read the words. So it's been really beneficial, I was really surprised to see not just the writing but all these other things that came up as well.
(OT: year 2)

This 'modelling' spilled over into small-group work. Teachers often described how it was necessary to structure groups, and to set agendas carefully within them, for the groups to function effectively. The reason for this was that many of the boys had few skills in working collaboratively together: they had to be carefully positioned initially - so that quiet boys would not be swamped by the more vocal boys, and the boys could learn the skills of small-group work. As the teacher describes below, the boys soon learnt how 'to express their opinions without offending others', and they also soon learnt how to operate small groups effectively.

I: When you formed the small groups, what was the basis for forming the small groups?
$\mathrm{T}:$ First thing was that I wanted to not put the really
opinionated and vocal boys with the shy and retiring, that was
my first, because I've got, it's chalk and cheese, there's some
that will really go right off and then there's some that will just
sit in the background and not say anything. So it was more of
a mixing of personalities, that was my first call. And to have
groups that weren't explosive in the fact that this kid is very
opinionated and has totally different views to this child, and I
don't want it to blow into world war 3, so that was another
issue.

And that was at the very beginning but once they got into talking about it and once they learnt sort of how to express their opinions without offending others, it was more sort of I let them sort of choose their groups, and who will you work well with for this. So once they sort of got the hang of it, it was very much up to them, and they coped really well with it, they did choose kids that they could work really well with as opposed to their friends. But the first thing in my mind when I was setting up the groups was personalities and confidence and things like that. And ability played some part in it, I didn't want to have a group of really capable kids, I wanted to sort of use them more as models, so ability then came into it and to make sure it was evenly spread right across the room. (OT: year 2)

Teachers also spoke of the importance of modelling a 'safe' classroom environment: of constructing the literacy classroom as a space within which students could feel able to participate without being humiliated; where they felt treated with respect and dignity; where they were positioned as responsible for their own learning.
... another thing that I found useful which I hadn't done at the beginning of the year, I tried to do but hadn't quite done it successfully was just setting up a safe environment where they can discuss things and not be worried about what other kids are going to say about them and because they are a really vocal group and they are very opinionated and like the age group very egocentric, it hadn't sort of established at the
beginning of the year and I think that was holding us back with what we could do as well. I think setting up a safe classroom environment just emotionally is, you know, it's always safe physically but emotionally and mentally where they can just take risks and talk about things.
(OT: year 2)
The thing is that I suppose I treat them as I wish to be treated myself. And I explain that at the beginning of the year. I also explain that what I expect of one I expect from the whole class, so if I ask, take homework for example, now if I set a task for homework, I, it's to all boys ... I think that they understand that there's a fair system in the class.
... through that you get this respect for one another ... also I think ... they know their boundaries. And as you go through the year, and all these things are established, the boundaries can come a little wider, you know you can just gradually step out, but kids, I don't care if they're grade 1 or grade 6 or grade 7, 8, 10 even, they need a structure, and they feel safe in that too ... Being fair, respecting them, having clear goals, being explicit in your teaching. And that sort of comes out with what makes a good classroom.

The other thing is ownership - that they take on the ownership, it's their class, it's their rules. Teaching them to become independent, OK you made the wrong decision, you learn from that ... nobody's ever ever got into trouble in my class for having a go. You'll get a clap, you know, often I just say, hey guys, pat yourselves on the back. And lots of praise, positive reinforcement.
(HM: year 6)
The importance of praise and reinforcement came through frequently in the interventions, and seemed a necessary and valuable strategy to help the boys remain confident that they were not only managing these new relationship modes, but being appreciated for doing so.

> And again just lots of positive reinforcement, lots of, that's fantastic, boosting their self-esteem. But I mean it sort of relates to their behaviour as well, where you know, I'm giving a lot of positive reinforcement to their behaviours because that's sort of where their problems are stemming from ... (MJ: year 2)

In some schools, the reinforcement and praise was often associated with some form of 'reward'.

The engagement of the boys was much higher, and that's because they were rewarded. When the first boy got his certificate on assembly, we made a big deal of that. There was
a two-week span where the others just wrote like there was no tomorrow. So the competitive nature and the rewardedness of effort in writing and commitment to it was highly motivating for boys, and I suppose that was my key understanding that came from this.
(DI: year 3)

## Negotiating and expanding the repertoires for engaging with the

## CULTURE

## Classroom vignette

A large primary school in the western fringe suburbs of a capital city caters to significant numbers of students for whom, or for whose parents, English is not the first language. Most of these families are from southern Asia, Europe or the Pacific islands. The community also comprises a substantial proportion of families in disadvantaged socio-economic circumstances. A year 2 teacher at the school undertook an intervention to engage boys in literacy learning through using real-life texts and technology. She described the central ideas that drove her project - its rationale and the expected outcomes in these words:

> This project focused on the importance of providing opportunities for students to draw on a range of literacy practices and activities that are a part of everyday life. The project I undertook was aimed at developing students' abilities, through explicit and systematic teaching, to read, interpret and critically analyse a variety of real-life texts, with the main focus being on advertisements ... the use of technology [computers and digital cameras] to enhance engagement in literacy learning was an important focus area and ... involved allowing students to respond to and create texts in a variety of ways.

Implementing the project involved:

- explicit teaching of language skills and strategies to critically analyse a variety of real-life texts (mainly advertisements), including examination of the language structures and features of advertisements, and critical analysis of persuasive techniques and stereotypes;
- training a group of boys in the use of the technology to be used so that they would be able to respond to and create texts in a variety of ways. This group of boys became an 'expert' group who acted as tutors or support people when it was time to use these technologies with the whole class; and
- providing students with the opportunity to respond to and create texts using a variety of technologies, with a year 6 buddy to tutor them in using the technology.

The project's initiatives related to use of materials (everyday advertisements), technologies (computers and digital cameras) and social configuration (older buddies).

Part of the teacher's rationale was expressed like this:

> In the past I have noticed that boys respond to the visual/hands-on element of the use of technology in various areas of the curriculum. I believe that the use of technology to create texts enhances engagement in literacy learning, as it provides variety in the mode of responding to texts, caters for a range of learning styles and also enables students to learn about how to use new technologies to accomplish a task. In the past, rather than focusing on the concept of gender, I planned activities that catered for the individual learning needs and styles of the students in my classes. I have used many higher-engagement learning strategies, including Multiple Intelligences and Bloom's Taxonomy. I have found in general that the boys I have taught have been interested in a ... more narrow range of text types and styles.

In listing the main outcomes of her project, including any improved student learning outcomes, the teacher drew attention to:

- the increased participation of all students in group and class discussions;
- students' enhanced ability to articulate their understandings and interpretations of the texts;
- students' clearer understanding of gender and social stereotypes; and
- the development of students' skills and understandings as readers, using the text-analyst and text-participant roles: 'The students increased their understandings of the ways texts are constructed.'

The teacher aimed at expanding and consolidating students' know-how, theory and ethic through negotiating a broader repertoire drawn from out-of-school culture.

> Since doing this project I have become more aware of the impact of gender on engagement in literacy tasks and the relevance and value of literacy activities that involve children in directly challenging gender and social stereotypes. I have found that the students have been able to draw on a wealth of understandings and previous knowledge about the texts we have been using. I believe the students have been more engaged, possibly because they can see more relevance in the activities they are engaging in.

When asked for recommendations arising from her involvement in this project, this teacher responded:

- Provide opportunities for students to draw on a range of literacy practices and activities that are a part of everyday life.
- Conduct explicit and systematic teaching that allows children to read, interpret and critically analyse a variety of real life texts.
- Challenge and discuss social and gender stereotypes.
- Use higher-engagement learning strategies to engage all children.

This year 2 teacher, who has taken part in a range of professional development programs, focused on boys' literacy within a framework of 'higher-engagement learning' which ensured that her use of everyday texts in classroom work by no means 'dumbed down' the curriculum. The teacher concluded her final report with a consideration of how the project had changed her views and her classroom practices.
> [This project] has certainly changed my ideas of what I see as important to include in literacy teaching. In particular, I more clearly see the importance of using popular and real-life texts that are a part of children's everyday life, to tap into student's interests and experiences. I have also more fully realised the value of students being able to critically deconstruct and analyse the way these texts work and understand the limited representation of groups, such as gender. These understandings are vital if children are to be critical consumers and participants in society. I consider that the inclusion of different types of texts is one of the important ways of engaging boys in literacy activities. I also consider that it is vitally important to provide opportunities to challenge the stereotypes in the texts that children encounter. I have also come to believe that incorporating hands-on literacy learning activities and the use of higher-engagement learning strategies are extremely valuable means of engaging boys in literacy learning.

## Schooling and the 'real world'

Decades of research in a broad range of disciplines shows that preferences in students' ways of (re)presenting the self and relating to others are influenced by the kinds of know-how, theories and ethics we encounter in various socio-cultural sites, be they homes, churches, schools, play groups or work sites. For young people, schools mandate certain tasks to be done with certain materials, within particular social relationships. The needs of the school as an institution set the regulatory framework for young people's relationships to others within the school, and for how they can and should present and conduct themselves. Schooling does this through the interface between the materials and tasks it deems to constitute its core business through the mandating of those materials and tasks and through the fact that they are mandated for all students.

For some time educational researchers have asked how 'thickly' these materials and tasks mandated by the school curriculum simulate the practices, needs and expectations that students experience outside the school, as well as those that await students on their departure from school (Heap 1992; Mikulecky \& Kirkley 1998;

Thomas, Sammons, Mortimore \& Smees 1997). Generally, these researchers have complained that only thin simulations of 'outside' and 'later' realities are put on offer in the materials and tasks used in classrooms. Our analysis of the interview materials and the interventions undertaken by these teachers leads us to extend the question of degree of simulation to include the school's interface with the ways of relating and the inter-subjectivities called for in those interrelationships - the ways of 'being'. The cultural sites outside of school in which young people become practised prior to and during their school years offer them repertoires of relating and being. As the vignette at the beginning of this section illustrates, the school's ability to interface with and draw productively on these repertoires - to reproduce, inflect or change them - are integral considerations for enhancing school learning generally.

Analysis of the interventions aimed at negotiating and expanding boys' repertoires for engaging with the culture revealed four related strategies for importing the 'real world' into the classroom:

- Incorporating genres from everyday life (for example, advertisements, grocery dockets, lolly wrappers);
- Drawing on the content of popular culture in which boys seemed to be interested (for example, surfing, dirt bikes, rugby league, fishing and skate boarding);
- Increasing the use of electronic technologies in the classroom (for example, computers, digital cameras, CD-ROMs;
- Integrating multiple media and communication modes in the classroom (for example, 'model-making, conducting and taping interviews, designing posters, drawing diagrams, taking photographs, using the telephone or fax machine and undertaking scientific experiments,' as one of the teachers described).


## 'Everyday' genres

Many of the teachers in Phase 2 of the study considered that the reading and writing materials and tasks used in schools constitute an insufficiently direct representation of the kinds of materials and tasks encountered 'outside' and 'later', in that they are not seen as relevant in the sites in which many students are growing up. It is clear that the group of teachers whose main emphasis is included in this section found this latter problem to apply with telling force in the literacy education of boys. Figure 6.4 presents representative comments from the teachers, around the central set of key inflections of this idea as we found it expressed in their interventions.

Figure 6.4: The 'real' and the 'everyday'

To engage boys more enthusiastically in literacy to improve their skills and interest. To do this I am drawing on literature from reallife situations, e.g. adverts, grocery dockets, lolly wrappers, etc, and the students have looked at the purpose of the text, who it is aimed at, the layout and the types of words used.
(BM: year 3)

We've been looking at really explicitly teaching a variety of things about advertisements. The persuasive techniques that are used, the visual part looking at the visual literacy and looking at the critical literacy side of advertisements. (DX: year 6)

The boys had a narrower field of what they were happy to engage in. Getting them in contact with something that they do everyday, that they're experiencing every day, and they're bringing something of their own understanding to what we were working on. (DX: year 6)

I have realised the importance and value of using 'real life' texts because of the amount of exposure that children have to these texts and their impact on their everyday lives. The students have been able to draw on a wealth of understandings and previous knowledge about the texts we have been using. I believe the students have been more engaged, possibly because they can see more relevance in the activities.
(DX: year 6)

To provide literature that is cool for boys to read. My general ideas on the teaching of literacy is to provide variety, writing and reading in a variety of genres and using a variety of strategies to implement it. We included comics, narrative, interviews, jokes and puzzles. (ME: year 6)

I see more clearly the importance of using real life texts, part of everyday children's life, to tap into their interests and experiences. I have more fully realised the value of students' being able to critically deconstruct and analyse the way these texts work and understand the limited representation of, say, gender. These understandings are vital if children are to be critical consumers and participants in society. (DX: year 6)

The key idea motivating this group of interventions was expressed succinctly by one of the six teachers in the project:

> The boys under my care who are experiencing difficulty in literacy seem to have no understanding of its importance. It seems to play no part in their home lives. I assume there is little reading modelled in their home lives. All three boys find literacy tedious and boring. Consequently, my aim is to provide learning experiences that are interesting and relevant. The boys [in my class for this project] were given the opportunity to reflect on their own experiences and existing knowledge, and encouraged to communicate their opinions and ideas in written and verbal form. It was hoped that the students would begin to find literacy more interesting and less tedious.
> (OT: year 6)

For the most part, these teachers were aiming at enhancing the engagement of the boys in their literacy learning. Key terms such as 'activity', 'enthusiasm', 'engagement' and indices of emotional involvement such as 'they loved it' appeared with considerable frequency in both the teachers' planning and their reflections on the outcomes of the interventions. Many teachers expressed the belief that it is engagement, fostered best for boys through the simulation of everyday literacy events, that can provide the platform for students' engagement with school literacy in the context of the school curriculum.

Over and above heightened engagement, a few teachers drew attention to the practical social demands on students' literacy outside and later. The particular know-how, theories and ethics of out-of-school literacy events are taken by many of these teachers to call for distinctive literacy capabilities, prominent among them, critical, analytic literacy. This some took to be worthwhile as learning in its own right, not just as a possible platform for the engagement of the traditional content and demands of school. Some teachers also pointed to the motivating effects of connecting to the everyday experiences of students' families and communities. Seeing, for example, how experience of literacy helps a home to function - socially, economically, and as a forum of common interests and discussion - was seen to be valuable for young children.

## The content of popular culture

For many of the teachers in this project, the key issue was not so much the representation of everyday literacy events - materials and tasks - in the work of the classroom, but rather the potential for popular cultural artefacts to motivate students. Several teachers included 'current affairs' as a general domain from which texts would be selected. The emphasis for these teachers was on making salient changes to the school work in such a way that the materials did not look as if they came from school, as a way of enhancing engagement in literacy learning. Again, Figure 6.5 presents representative comments from the teachers, around the central set of key inflections of this idea as we found it expressed in their interventions.

Figure 6.5: Popular culture materials

We decided to write our own choice story. One group of seven boys got together and wrote Jurassic Park book 1 to 7, one each of at least three pages, one [of these] is twentyone pages of bloodthirsty vivid description of constant on-thego terror and chasing adventure, not my cup of tea, but they love it. All published beautifully with drawings. (ME: year 6)

Using real-life concrete stimulus has enhanced their understanding and their interest in not only writing but current affairs etc.
(MM: year 2)
... a personal focus on each child's individual interest e.g. sport, computers etc. This selfinterest concept was instrumental in inspiring all of the children in my class to not only work productively on writing activities but also attack work with eagerness and enthusiasm.
(MM: year 6)

One boy who writes very little did an interview on his family and their boxing interest. He did the interview questions and took it home, the family half looked at it and together we could write a little story from the discussions that had taken place at home. He was away for a bit of the magazine project as his nan died and home life was in upheaval. His writing does seem to have got longer. He liked writing about his motor bike adventure with his older brother, who he really looks up to.
(ME: year 6)

They could write about topics they were generally interested in and had lots of background knowledge about. Ideas flowed easily and they were not stumped for ideas to write about. Even the children who in previous writing lessons found it difficult to find a starting point - not to mention actually enjoying and completing a writing activity. (MM: year 6)

## Popular culture materials

## Motivation, engagement and enthusiasm

Bringing games into the classroom
Engaging more non-fiction genres

## Using their background knowledge

Establishing domains of
expertise

Often the subject matter which boys are asked to read and write about does not cater for their interests hence they are not motivated to read and write. Borrowing habits at our school indicate that many boys have a preference for nonfiction - borrowing magazines about surfing, dirt bikes, rugby league, fishing and skateboarding. Allowing students to select a subject of personal interest to them will support boys interests in non-fiction topics.
(NL: year 7)

The 'fact' that boys' interest in popular cultural artefacts is taken to be at the centre of many of these interventions, was summarised by one of the teachers in this way:

> Action/adventure magazine: Why? It is a topic boys like. We decided on comics, which just happened to coincide with a visiting comic artist. The comic fitted in with our fraction unit also, dividing the paper into parts. We looked at lots of comics and did our own in pairs. The puzzle ideas came from looking at newspapers and doing the ones the students liked to do ... The magazine is already popular and it isn't published yet. The students keep taking it and browsing through. They can't wait for it to come out. (ME: year 6)

One of the inflections through which this idea was expressed concerns the ways in which popular culture domains offer boys positions of expertise in the classroom that the materials and tasks of school may typically not. This connects directly with the repertoires we discussed in earlier sections - ways of relating and ways of (re)presenting the self. It is clear in this case, then, that some of these teachers introduced popular culture materials not only because they provide a worthwhile educational provision for young people in themselves, but also because they can change the speaking and writing position of the students and their positions of authority over knowledge, relative to the teacher and to one another.

In the views of the teachers who introduced popular culture into their literacy classrooms as part of Phase 2 of this study, use of popular culture increases some students' chances of achieving success in their literacy learning. This view has a long tradition in educational theory, practice and policy, notably in the 1960s when educators such as Bruner (1966, and more recently 1996) critiqued the blandness and apparent irrelevance of much of what is done, particularly in the primary school years. While the perception of 'relevance' is important for all students, for many boys it is a factor that can seriously affect their success in learning literacy and in school more generally, according to many teachers in Phase 2 of this study.

These teachers imported magazine materials, scripts and comics based on popular movies, records of spoken language from home, and a range of everyday texts such as advertisements and notes. Crucially, these materials, as they are used out of school in their 'native habitats', are not generally embedded in school-type tasks - reading aloud, asking and answering 'comprehension' questions, reproducing texts in alternative formats or media. These teachers did not particularly focus on changing the tasks of which these popular culture materials formed a part, but rather on the largely motivational effects of making the classroom look more like the outside world and thus making it more 'fun'. They almost all acknowledged positive effects that this move made over the course of the project.

## The use of electronic technologies

There was a strong conviction among the teachers who took part in Phases 1 and 2 of this project that new electronic technologies (NETs) had particular appeal and thus considerable potential educational relevance for boys (see also chapters 4 and 5).

They saw NETs as providing boys with activities that involve movement and manipulation, with immediate, visible, real-task demonstrations of success or failure. NETs were also taken to have the merit of relating to the contemporary world - they are, almost by definition and certainly by common understanding, 'new'. As well, they were taken to offer particular help in the accurate and rapid conduct of school tasks that may otherwise be regarded as boring or difficult by some students because of the need for long-term, labour-intensive and meticulous effort.

Finally, the teachers often expressed the view that many boys find the use of NETs to be a context in which they can enhance their sense of self as literacy learners (see 'Intervention strategies' within 'Expanding repertoires for (re)presenting the self', earlier in this chapter). These teachers noted the special impact of the use of NETs in the classroom on boys' know-how, theories, and ethics as students. Figure 6.6 presents representative comments from the teachers, around the central set of key inflections of this idea as we found it expressed in their interventions.

Figure 6.6: Electronic technologies

At [name of school] there are so many vibrant students but they lack in enthusiasm and confidence when speaking in front of an audience. As technology is very popular with the boys, we used PowerPoint to aid their public-speaking presentation.
(OP: year 6)

One particular boy showed increased confidence levels and was able to interact more positively with a wide range of students in his role as a digital camera/computer expert in the classroom.
(DX: year 6)

This boy is a student with speech difficulties who is working at approximately year 2 level in literacy. He is still unsure of sound-letter relationships and is understandably a reluctant learner. However he is extremely motivated to work on the CD-ROM, frequently asking, 'Is it my turn?' So far he has, with the help of an adult, read through the information, chosen topics for a reference book for year 4, taken notes and completed two pages. Again I need to transfer this success to other areas but it is a good sign.
(BM: year 7)

Word-processing programs allow boys to present their work neatly and with greater technical accuracy by using spelling and grammar checks. (NL: year 7)

| $\quad$Electronic <br> technologies |
| :--- |
| Hands-on experience for |
| boys |
| Context for success |
| Context for choice |
| Helpful with spelling, |
| neatness etc. |
| Useful for collecting |
| information |

Self-esteem has been boosted slightly as the boys feel a sense of achievement and success when they produce their work on the computer. (BM: year 3)

In 2000, we began a [name of commercial program], which generated massive interest, especially among the boys. This year's boys were no different, and with the purchase of extension kits, interest was maintained. I was keen to discover how far this interest and motivation could be stretched.
(BM: year 7)

I believe that using information technology will motivate boys to participate in this project. All students will be encouraged to use CD-ROMs which may assist with information gathering, as well as using the Internet to search for websites devoted to their chosen topics. They will have access to a scanner, a digital camera and e-mail facilities. They will be encouraged to present at least part of their project using PowerPoint. This allows for the use of computer graphics and sound. At the moment, this is a popular classroom activity especially for boys.
(NL: year 7)

The boys are more interested in reading, writing and verbalising during these sessions, but are even more interested in the use of the computer and the digital camera.
(BM: year 3)
One of the facilities that NETs offer teachers, particularly for literacy learning, is that recordings of students' talk can be broadcast in the classroom. Small groups of students can have their work directly available to the whole class, individuals can record (on CD-ROM or digital camera, or audio-to-disk) their ongoing work and refine it as they go. As well, materials can be easily brought from other sites, such as home, into the school setting. These technologies can extend, and compress, time and space boundaries that redefine what materials can be used in classrooms. They also have built-in procedures for easily erasing or correcting mistakes.

All of these potentialities were noted in various ways by the teachers who focused on this as the main point of change in their interventions. Clearly, NET products by
students have high visibility and constitute high-prestige accomplishment in a classroom setting. Success in such products was related to enhanced confidence among boys, and thus had the potential to provide an additional platform for literacy success that could be extended to other school learning.

## Mixing multimedia and multimodalities in the classroom

A minority of teachers pointed explicitly to the benefits to be gained from multimedia, multimodal activities in the classroom, and aimed primarily at the interface of these in their interventions. This focus is a subset of the technologyrelated interventions summarised above, but it included working at the relationship between NETs and more traditional print and oral communications. These teachers focused on the benefits that flow back and forth between increasing facility in a range of traditional and non-traditional modes, and the particular relevance of this to the motivation of boys in their learning, and the enhanced avenues for expression that such mixtures offer. Figure 6.7 presents representative comments from the teachers, around the central set of key inflections of this idea as we found it expressed in their interventions.

Figure 6.7: Multimedia and multimodal work creates new domains

The students reproduced their own replicas of these text, used a digital camera to take photos of the original and their own, and then put these into PowerPoint, and wrote about the process they used to create these. The boys in my class are very interested in using the computer and the digital camera and they are more willing to become involved in literacy when these are going to be used.
(BM: year 3)

The boys in both grades we felt needed work on public speaking. We decided to incorporate PowerPoint presentations into the project as a motivator. (OP: years 2 and 6)

## Multimedia and multimodal work creates new domains

Critical analysis
Catering for different learning styles

Deeper involvement
Incorporation of crosscurricular activities

I have a theory that those older boys who have difficulty code breaking when reading and writing have strengths in visual literacy fields. I hope to encourage those students to utilise these strengths when planning by using graphic outlines and when presenting their project by using diagrams, models, maps, graphs and computer technology to create meaning and in so doing, enhance their own self-confidence as literacy learners.
(NL: year 7)
[This project] has encouraged me to use a broader range of technology in the classroom. For example students have been critically analysing the differences between recording mediums and reflecting on the effectiveness of visual and audible responses.
(ME: year 2)

To maximise student involvement, I would also include music and art in particular as these are often areas reluctant students will participate in. Initially I thought technology alone would enthuse my boys who are not performing to their potential. However this has not been the case.
(BM: year 7)

I recognise that some boys and girls have different learning styles. The preferred learning style of some boys is action-orientated. This project allows boys to choose activities which could include model making, conducting/ taping interviews, designing posters, drawing diagrams, taking photographs, using the telephone or fax machine and undertaking scientific experiments.
(NL: year 7)

The interventions summarised in this section represent a sophisticated application of the idea that real-world literacy events increasingly entail working across multiple technologies and in different communicational modes. A report that surveys and critiques current literacy education policies and practices in Queensland described this issue of multimediated and multimodal text facility in these terms:

> Perhaps the biggest challenge for the Education Queensland Literacy Strategy is to help Queensland students and teachers, schools and communities manage the gradual and unprecedented transition from industrial to information-based cultures and economies; from print-based to multi-mediated education and schooling ... young people have to learn to cope - with some degrees of critical discernment - with a virtually infinite range of spoken, written and electronic texts on a daily basis. This is not negotiable, nor is it something that is best delayed until people leave school, nor is it something that we can make 'go away' by ignoring or denying. Nor is it something that they will magically 'learn to do' if we just give them rudimentary basic decoding or spelling skills.
> (Luke, Freebody \& Land 2000, pp. 18-21)

It is notable that several of the teachers who nominated this issue as a centrepiece in their interventions also made the connections between mixing modalities and two facets of literacy learning: the learning about language made available through the comparison of language forms in various modalities, and the pressure on students' critical, analytic skills that is evident when multimodal and multimediated textual work is undertaken in the classroom.

## Discussion: issues

This section has summarised the teachers' interventions in terms of how they tried to expand students' repertoires for dealing with the literacy forms, contents and technologies of the culture - the 'real world'. These realities, for these teachers, were approached in terms of the importation of four kinds of materials and tasks: the texts of everyday life, the texts of popular culture, the electronic technologies of contemporary culture, and multimedia and multimodal activities. In almost all interventions conducted in Phase 2 of this project we see evidence of one or another inflection of these importations as a key approach to the enhancement of boys' literacy learning and development.

The logic at work here is common throughout the research and professional development literature and in the statements of the teachers and parents in this project: that the problem with the literacy learning of many boys is the problem of the textual and task features of school work, traditionally understood. These curricular texts and tasks are routinely described as 'boring' - dull, uninspiring, irrelevant, and, generally, disengaging - for many boys. Thus teachers construed the significance of their importation of the 'real world' in terms of the potential that the texts and tasks of this 'real world' have to be more engaging than school work. It is important to note that only a minority of teachers who focused on such importations named the
importance of out-of-school texts and tasks for what they actually offer students out of school as worthwhile learnings in their own right. The key issue, generally, was recruiting the 'real world' to increase students' engagement in school work.

A number of further points need to be made about the issue of negotiating and expanding the cultural repertoires of students' literacy activities and capabilities. The first concerns the sources and ethic of literate materials from outside the school.

Many everyday and popular texts, including texts made available through electronic communications, are commercial products operating in a relatively free marketplace. Texts found in school syllabuses and in the book rooms of every school are also commercial products, but their contents are tailored to fit current approaches to literacy teaching, with particular pedagogical routines, and principles that regulate the contents of school materials for children (Baker \& Freebody 1989). Authors of texts for children and adolescents take note of schools' interests and generic preferences, if only to increase sales by having their texts adopted by school systems.

Outside the 'school' market, however, products available to children and adolescents often reproduce, reinforce and reflect features of youth culture as part of their market strategy. These features include capitalising on repertoires that reflect and rebuild anti-adult, pro-peer sentiment that includes anti-seriousness (of the 'surfing, dirt bikes, rugby league, fishing and skate boarding' variety) and anti-sociability (of the 'if that means war, ninjas, sports or guns, so be it' variety). Crucial for the purposes of this study, they also include representations of hyper-masculinity and hyperfemininity as part of the marketability for this commercial niche.

What this means is that the know-how, theory and ethic that are afforded by the use of these materials call for more interventionist analytic strategies - critical use rather than just discerning selection - on the part of the program the teacher works up in the classroom. Over and above the general issue of whether or not these materials are found to be more engaging by boys, real engagement in these imported materials calls for more intensive analysis of the texts' cultural contents, and highlights the powerfully gendered nature of commercial representations of the culture in which the school operates.

A second consideration is that a number of the teachers in Phase 2 of the study saw the use of everyday, popular and NET texts as a platform for showing students the ways in which literacy practices relate to everyday life, allowing for an enhanced and expanded range of conversations and events in which the student can take a meaningful part. This is a point raised by some of the parents, as we documented in Chapter 4. The importation of everyday texts can expand the sharing of interests across home, school and community contexts, enabling new kinds of talk and activity to go on in homes and schools, and highlighting the prevalence of literate practices in an information society, across local and communal life. The common description of literacy as 'social' has a number of inflections, and several of the participating teachers were attuned to the links that literate artefacts can construct between what is done in school, and how that enables new kinds of talk and activity to go on in homes, and vice-versa.

Importation of out-of-school, extra-curricular materials and tasks to motivate literacy learners is by no means a new idea, even though some of its popular-culture and electronic forms have made only recent appearances. The record of use of such material, especially with 'reluctant' or 'at-risk' students, reveals some key issues for consideration:

- In the 'real world', everyday or NET texts have specific uses and call for a particular practical repertoire. Asking comprehension questions, for instance, is not what is typically done with an extract from a dirtbike magazine or an advertisement. Such texts may form the bases of some critical discussion and analysis of multimodal choices by the authors, but the 'real-world' literacy event is different from the educational event that can be constructed around any given text. A belief in the ability of everyday texts of themselves to deliver sustained engagement - that it is just the materials and not the tasks within which they are used that are 'boring' or 'irrelevant' - is questionable.
- Are they still learning to read and write? Because of the first point, the use of 'real-world' texts has often been largely motivated by the need to manage and occupy 'difficult' students. In the least effective case, this may simply mean students' looking at pictures and discussing what they do or do not like about the text. These likes and dislikes are themselves reflections of gendered commonsense cultural discourses, and giving them prominence in classrooms can counterproductively reinforce and naturalise such discourses (Freebody, Luke \& Gilbert 1991; Gilbert 1993).
- The use of 'real-world' texts does not obviate the need for the teaching and learning of reading and writing practices, as many of the Phase 2 teachers acknowledged. 'Difficult' students may be engaged, but not necessarily learning anything new about literacy. In that case, importing everyday texts can disadvantage some students. Using these more engaging materials and technologies to introduce discipline-based curricular know-how, theory and ethic calls for explicit planning. Heightened engagement in materials does not, of itself, smooth the way to formal school knowledge.
- How should schools and teachers deal with the deliberately antiadult, anti-authority, anti-school theories and ethics that underpin much text production and marketing in the 'real world' of children's and adolescents' communicational artefacts, including the electronic artifacts to which many boys are attached?

Two key questions remain: Do such importations of 'real-world' repertoires constitute a long-term literacy program, or are they at best brief motivational or energising moves on schools' part to have boys re-engage the demands of literacy learning across the curricular areas and across the school years? And do these interventions themselves reinstate and give institutional sanction to the attributions routinely attached by teachers and the community at large to boys? These questions reflect the dialectics within which teachers work - the ways in which schools need to try to relate to but change a culture, including expanding boys' and girls' repertoires
of intellectual and cultural practice. They reflect the tension built into contemporary schooling: preparing students for everyday realities, outside and later, at the same time as acculturating students into specialised, non-commonsensical and powerful knowledge through exposure to the curricular disciplines.

## 7

## Analysis of data and outcomes

This chapter draws together a range of data analyses that bear on our interpretation of what teachers achieved through their intervention strategies (see Chapter 6). We begin our analyses by first exploring the magnitude of gender and socio-economic status (SES) effects within the sample of year $2 / 3$ and year $6 / 7$ students from the 24 schools involved in the study at Phase 1. We do this by using State-level data to moderate teachers' evaluations of students' performance in reading and writing that we collected during the first round of interviews at the beginning of Phase 1 of the study (see Chapter 5). In 'Changes in ratings on the four-roles model', we turn our attention to teachers' judgments related to change in students' performance associated with the various Phase 2 intervention strategies that were trialled as part of the overall project design. To this end, we examine teacher estimates of change in literacy performance over the intervention period. Here we refer specifically to the numbers of boys and of girls who, in teachers' judgments, would continue to experience difficulty in the coming year as code-breakers, text participants, text users and text analysts. Results for these domains of literate competence are separately examined for reading and for writing. Statistical data related to intervention are complemented in 'Efficacy of outcomes' by fleshing out teachers' observation-based comments and reflections focusing on the extent to which their intervention strategies had been successful in achieving their goals.

Throughout the chapter we attempt to draw together quantitative and qualitative data related to the efficacy of teacher attempts to produce conditions under which boys' literacy achievement levels would improve, and girls' achievements would not be jeopardised. We also provide discussion and interpretation based on the various sources of data collection, including State-moderated performance results.

## Using states' data to explore gender and socio-economic status effects

In the interview sessions teachers were asked to provide separate ratings for the reading and writing abilities of the children in their classes on a 10 -point scale ( $1=$ poor; $10=$ good). Full ratings were received from 20 year $6 / 7$ teachers and from 22 year $2 / 3$ teachers (out of 24 schools in the sample). In total, ratings were received for 495 year $2 / 3$ students, and for 458 year $6 / 7$ students.

These ratings represent teachers' perceptions of students' reading and writing abilities. As is typical of rating-scale data, some teachers used all ten points on the scale, others did not. Clearly, these data could not be used in their raw form to compare boys' and girls' performance or to check for the relationship between performance and socio-economic status of the school and the surrounding community. To enable these comparisons, adjustments were made to each class's data: to the means for each class (to move a class's data up or down the scales), and to class standard deviations (to compress or extend a class's data). These adjustments
were undertaken in an attempt to locate each classroom's participants on a scale that is comparable for the entire sample group.

All schools but one provided data from their annual system-wide literacy and numeracy testing. In addition, due to differences in the timing of release of relevant data from systems' authorities, data on writing performance was not received for upper-primary-year groups in two schools.

The scales used by State and independent systems were different. Therefore, within each system, the new scores were standardised (mean $=0$, and standard deviation $=$ 1). These standardised scores were re-transformed back to a $1-10$ scale, with a mean of 5 and a standard deviation of 1.5 (for year $6 / 7, \mathrm{~N}=473$ [male, $\mathrm{N}=245$; female, N = 228]; for year $2 / 3, \mathrm{~N}=430$ [male, $\mathrm{N}=217$; female, $\mathrm{N}=213]$ ).

The means and standard deviations for the ratings collected in the schools, and the means and standard deviations for each school provided by the system were transformed into a new score:

$$
\text { new score }=\frac{\left(\text { old score }-\overline{\mathrm{X}}_{\text {rating }}\right) \mathrm{sd}_{\text {system }}}{\text { sd }_{\text {rating }}}+\overline{\mathrm{X}}_{\text {system }}
$$

Correlations between reading and writing scores were very high and positive: (year 2/3: Male: $\mathrm{r}=0.874 ; \mathrm{N}=245 ; \mathrm{p}<0.001$; Female: $\mathrm{r}=0.908 ; \mathrm{N}=228 ; \mathrm{p}<0.001$; year 6/7: Male: $r=0.864 ; \mathrm{N}=196 ; \mathrm{p}<0.001$; Female: $\mathrm{r}=0.855 ; \mathrm{N}=199 ; p<0.001$ ). No significant differences were found between these correlations for either group (p> 0.05 ). The scatterplots shown in Figures 7.1 and 7.2 indicate the relationship between reading and writing scores.

Figure 7.1: Reading and writing scores for year 2/3


Figure 7.2: Reading and writing scores for year 6/7


The varying format, scaling and contents of additional information provided by systems (for example, some reported proportions of students whose first language background is not English, some did not) led us to assign a socio-economic status (SES) index to each school based on the postcode for each school (the relevant data being supplied by the Commonwealth Department of Education, Science and Training); hence, students were assigned their school's SES index. Again, to compensate for reporting differences, the SES index was dichotomous: low, and moderate/high (which we have labelled below 'not low'). Four one-way analyses of variance were performed, with the means tested shown in Figures 7.3 and 7.4.

For year $2 / 3$ reading measures, there was no significant interaction between gender and socio-economic status ( $p=0.58$ ). That is, the effects of gender and socioeconomic status operated independently of one another on this measure. Similarly, no significant main effect for gender was found ( $\mathrm{p}=0.40$ ). The effect of socioeconomic status on reading scores at year $2 / 3$ was highly significant $(\mathrm{F}[1,469]=$ $6.87, p=0.009, \eta^{2}=0.014$ ).

For year 6/7 reading measures, again, no significant interaction between gender and socio-economic status was evident $(\mathrm{p}=0.73$ ) but, at this year level, significant main effects were found for gender ( $\mathrm{F}[1,426]=4.87, \mathrm{p}=0.028, \eta^{2}=0.010$ ) and socioeconomic status ( $\mathrm{F}[1,426]=44.88, \mathrm{p}<0.001, \eta^{2}=0.094$ ).

Figure 7.3: Reading score at year 2/3


Figure 7.4: Reading at year 6/7


Turning to writing performance on these tests, year $2 / 3$ data showed no significant interaction between gender and socio-economic status ( $p=0.53$ ), but significant main effects for both gender $\left(\mathrm{F}[1,469]=5.23, \mathrm{p}=0.023, \eta^{2}=0.011\right)$ and socio-economic status $\left(\mathrm{F}[1,469]=7.41, \mathrm{p}=0.007, \eta^{2}=0.015\right)$.

Similarly, for year 6/7, the interaction effect between gender and socio-economic status was not significant ( $p=0.249$ ), but both main effects attained significance (gender: $\mathrm{F}[1,391]=6.517, p=0.011, \eta^{2}=0.016$; socio-economic status: $\mathrm{F}[1,391]=$ 20.81, $\mathrm{p}<0.001, \eta^{2}=0.050$ ). These effects are displayed in Figures 7.5 and 7.6.

Figure 7.5: Writing at year 2/3


Figure 7.6: Writing at year 6/7


To summarise, no interactions between socio-economic status and gender reach significance. Students from schools located in areas of low socio-economic status do not perform as well as students from schools located in areas of medium and high socio-economic status, but effect sizes are small for the year $2 / 3$ groups.

Is there a gender effect? Given that four ANOVAs were conducted and the sample sizes are large, there is a need to exercise caution in the interpretation of these effects. For instance, if the inflation of type II error is protected against through the use of the Bonferoni adjustment ( $0.05 / 4$ ), we find an adjusted critical alpha of 0.0125 . In this
case, only the gender main effect for writing at year 6/7 level retains its statistical reliability, but effect size is very small.

An alternative approach is to cluster the students on the reading and writing scores (using ISODATA) and explore the relationships of gender and socio-economic status to the cluster formations. At both the year $2 / 3$ level and the year $6 / 7$ level, the optimal number of clusters was four. At year $2 / 3$ level, a four-cluster solution accounts for a high proportion of the total variability $\left(\eta^{2}=0.861\right)$, and yields a substantial increase in variance accounted for over a three-cluster solution (increase $\eta^{2}=0.071$ ). Moving on to five clusters gives only an additional $2.4 \%$ variance. Similarly, at year $6 / 7$ level, a four-cluster solution shows $\eta^{2}=0.849$, and increase in $\eta^{2}=0.075$, with only $2.4 \%$ gained in moving to five clusters. Because of the high intercorrelations of reading and writing performance on these measures, the clusters formed tend to be in layers, rather than in cross-over groupings. They are shown in Figures 7.7 and 7.8 for year $2 / 3$ and $6 / 7$ respectively.

Figure 7.7: Clusters of students on reading and writing variables, year 2/3


Figure 7.8: Clusters of students on reading and writing variables, year 6/7


In exploring the compositions of these groupings, we find that there are no significant associations between these reading and writing groups and gender (year $2 / 3: \chi^{2}(3)=$ 3.86, $p=0.28$; year 6/7: $\left.\chi^{2}(3)=6.05, p=0.11\right)$. There are, however, significant associations between these reading and writing groups and socio-economic status (year 2/3: $\chi^{2}(3)=8.28, p=0.041$; year 6/7: $\left.\chi^{2}(3)=32.71, p<0.001\right)$. The concatenated tables are shown in Figure 7.9.

Figure 7．9：Cross－tabulation between reading and writing groups and socio－economic status

|  |  | Reading and writing groups |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Good | 2 | 3 | Poor | Total |
| Year 2／3 | Low SES | 66 $\downarrow$ | 113 | 88 | 41 | 308 |
|  | Not low SES | 54ヶ | 55 | 42 | 14 | 165 |
|  | Total | 120 | 168 | 130 | 55 | 473 |
| Year 6／7 | Low SES | 37】 | 91 | 101ヶ | 52个 | 281 |
|  | Not low SES | 38ヶ | 46 | 20】 | 10】 | 114 |
|  | Total | 75 | 137 | 121 | 62 | 395 |

Regardless of year level，fewer than expected students from schools located in areas of low socio－economic status are in the top reading or writing group．In addition，at year 6／7，more students than expected for schools located in areas of low socio－ economic status are found in the two bottom reading and writing groups．

## Summary

On the basis of the adjustments made to the schools＇data taking into account the schools＇positions on the State－based performance measures，we can make the following conclusions concerning the relationships among performance，gender and socio－economic status for this sample：
－On none of the measures at either year level was there a significant interaction between gender and socio－economic status．
－For year $2 / 3$ reading，no gender effects were reliable，but socio－ economic status statistically predicted performance．
－For year $6 / 7$ reading，and for writing at years $2 / 3$ and $6 / 7$ ，both gender and socio－economic status were related to performance as main effects．
－If a conservative adjustment is made in the light of large $n$＇s and multiple F－tests，only the gender effect on year $6 / 7$ writing is retained，along with all socio－economic status effects．
－Clustering student profiles and exploring chi－square relations with gender and socio－economic status results in socio－economic status effects only．

## Changes in ratings on the four－Roles model

Before and after the intervention，teachers were asked to estimate the number of students in their class whom they considered would struggle with the literacy demands of the school year ahead．As outlined and explained in the training day，the format for these estimates was the＇four－roles model＇of literacy，which，to recapitulate，posits four central domains of competence that interact in the development of appropriate and accurate literacy capability：breaking the codes of the graphic message，participating in the explicit and implicit meaning systems within the text，using textual forms in ways appropriate to a range of purposeful settings，and critically analysing the contexts of texts from a range of positions．So the teachers needed to apply the criteria consistently across the two occasions of estimating，and
to consider, as best they could, levels of difficulty that would actively impede students' progress in the following year of school.

These data are presented as indicative of the teachers' perceptions of students' progress within the limited time-frame of the intervention (ranging from approximately 6 to 9 weeks). No more detailed statistical analyses were undertaken on these estimates because of the short time-frame, the small number of teachers participating in the intervention phase, and the fact that these data were estimates only. No additional testing was undertaken to test the validity or otherwise of the estimates.

The teachers' estimates before and after the intervention were compared. The number estimated to have difficulties after the intervention was subtracted from the number estimated before the intervention. The mean values of these difference estimates (that is, the numbers following subtraction) are used in Figures 7.10 and 7.11 which indicate the number of students these teachers rated as facing difficulties at the start of the intervention who were judged no longer to be facing difficulties. These mean differences are shown for each of the year levels ( $2 / 3$ and $6 / 7$ ) on reading and writing.

Figure 7.10: Estimated mean number of students no longer experiencing difficulty in reading, year $2 / 3$


Figure 7.10 shows that most year $2 / 3$ teachers reported a moderate drop in the number of students experiencing difficulties in reading. Estimates for boys were more pronounced in their positive effects than for girls, although the estimates for boys and girls are substantial and equal in the case of critical text analysis.

Figure 7.11: Estimated mean number of students no longer experiencing difficulty in reading, year 6/7


Year 6/7 gains, as shown in Figure 7.11, were reported as more pronounced than those for year $2 / 3$, especially in the case of boys. Again, the trend is for gains in codebreaking facility to be less dramatic than for the other domains of capability, in particular critical text analysis.

Figure 7.12: Estimated mean number of students no longer experiencing difficulty in writing, year 2/3


In the case of year $2 / 3$ writing, estimated gains are more modest, except for the textanalytic improvement of girls. This was caused by two teachers' estimates in which girls were rated as having made very large levels of improvement in their critical analysis of texts.

Figure 7.13: Estimated mean number of students no longer experiencing difficulty in writing, year 6/7


Consistent and strong gains were reported for boys' writing in year $6 / 7$, with minimal gains for girls. Again, gains are reported as more pronounced in the case of textparticipant, text-user and text analyst than for code-breaking capabilities.

## Summary

Overall, teachers saw their interventions as lowering the number of students whose literacy abilities would cause them to experience difficulties relating to literacy in the coming school year. While several teachers registered that no evident gains had been made on some of the 'roles', and two noted negative gains on one each of the criteria, the bulk reported positive effects for the intervention.

Two distinct trends are evident in the teachers' estimates:

- First, students were generally rated as changing less on their codebreaking skills as a result of the intervention than on the other domains. The students in these classes would be expected to have received many learning experiences related to cracking the codes of written English. This probably means that a higher entry baseline is established for this aspect of literacy functioning than for the other domains. In general, highest gains were noted for the text-user and text-analyst categories. This reflects the comments many teachers gave in their interviews and in reports of the progress and outcomes of their interventions. Several indicated that they had been concerned about the students' limited exposure to a range of genres and texttypes, and the urgent need to enhance their critical reading and writing capabilities.
- Second, boys' gains were generally reported to have been more substantial than those of girls. Indeed, there is only one instance of the reverse - text-analysis skills in year $2 / 3$ writing. Since the interventions were aimed specifically at improving boys' literacy performance, this is not entirely surprising. It is worth noting, however, that fewer girls were estimated to be facing difficulties after the intervention on all measures and areas and year levels, with the exception of code-breaking in reading for the year $2 / 3$ girls (zero change estimated).

A number of cautions are indicated in the interpretation of these findings. We structured the sample to include teachers working in a wide range of settings. This means that the baseline of students' capabilities coming into the intervention phase was highly variable from site to site. For some teachers at both year levels, their students came into the intervention already with well-developed literacy skills, while for other teachers this was not the case. A gain of only one student on these estimates may represent a substantial improvement from a high-level starting point while, for classes with a low starting point, more considerable improvements would be expected.

We need also to consider that the criteria for nomination as 'having difficulties' may have shifted over the course of the two estimation occasions. Such shifts can be simply reliability issues, but in this case they could also reflect more attention to and awareness of the criteria used in the four-roles model. Teachers focused on different aspects of performance in the brief time available to them in the intervention phase, so it is possible that their heightened attention to these specific aspects of literacy caused some sensitisation and thus some shifting in the application of the criteria. It is
also the case that these estimations may well have been subject to a 'Hawthorne effect' given our emphasis on the literacy learning of boys.

With these cautions in mind, the results are nonetheless supportive of the proposition that even these short interventions appeared to the teachers to have some positive effects. Notable are the substantial changes reported in students' proficiencies in textuser and text-analytic aspects of literacy learning. This probably reflects the fact that many of the interventions, as documented in Chapter 6, were aimed at expanding students' repertoires of culture using non-standard school textual materials in a variety of media. This was due to a perceived limitation among the boys in many of the classes in the breadth of their exposure to different types of texts, a perception at which many interventions were directly aimed, as part of the process of enhancing boys' engagement with the materials. Also notable are the comparable improvements estimated for reading and writing. Again, many interventions were aimed at linking stimulus materials with the creation of different kinds of products. This also relates directly to the characterisation by many teachers of the engaging effects of 'hands-on' activities, and boys' perceived relative lack of interest in reading-for-reading.

These findings correlate with the comments teachers gave us about the ways in which their students had reacted to the interventions. These are summarised in the next section.

## Efficacy of outcomes

When asked to list the learning outcomes associated with their interventions, overwhelmingly, teachers reported increased engagement in literacy learning among boys and improved confidence in their uptake of literate practices. Engagement and confidence were the two most frequently cited outcomes as distilled from teachers' written reports and from the interview data that were collected at the end of the project. This is perhaps not surprising considering that, in planning their interventions, teachers emphasised the need to improve boys' engagement and confidence.

As discussed in Chapter 6, teachers were convinced that improving boys' engagement was a necessary first step to improving literacy outcomes and they saw evidence of their success in a range of indicators. Teachers observed, for instance, that associated with their interventions, there had been 'a decrease in resistance and an increase in boys' enthusiasm for writing' (OT: year 2), that boys had begun to work on literacy activities 'without prompting' (HM: year 6) and that there had been a generalised increase in 'participation of all students in group and class discussions' (DX: year 6). According to one teacher's observations, the low achievers in her class demonstrated 'increased enthusiasm' and the boys and girls in that category were 'continually asking if it was their turn' to participate in the literacy activities where previously they had not been such willing participants (BM: year 7). An anomaly that emerged within the context of the projects was that when boys genuinely engaged with literacy activities, they were able to focus, pay attention, and concentrate in ways that teachers had presumed they were not able. So while most teachers had previously accepted the claim as self-evidential that boys needed brief activities to accommodate
their poor attention spans, some raised questions about the status of this truism in professional talk:

> I have become more aware of the fact that boys perform better when they are required to be on-task for short periods of time with breaks in between. Although with the project I am undertaking I have found that they remain on-task for longer periods of time, which highlights to me that motivation is certainly a key factor.
> (SB: year 2)

Reflections like this were made by a number of teachers as they worked successfully towards capturing boys' attention and interests. Indeed, in one classroom boys were reported as remaining on-task for periods of up to three and one-half hours at a time (HM: year 6). These kinds of observations and reflections on the efficacy of intervention strategies challenged teacher assumptions about the inevitability of boys' lack of attention and refocused teacher attention on the variety of teaching strategies that would engage boys. The shift was away from what boys lacked (attention), to what teachers could do, what they could achieve through expanding repertoires of the self, of relationships and of cultures, that could promote literacy learning within their classrooms.

With respect to boys' engagement, teachers were convinced of the efficacy of their strategies and they made regular and repeated claims like these about learning outcomes:
'On task' time has improved with boys engaging in the activities for longer periods of time and with more concentration given to the task.
(BM: year 3)
... the key outcomes were really interesting in that the motivation for boys to write increased dramatically. (DI: year 3)

And because the engagement was higher, literacy outcomes will be higher. I did see for some boys involvement that I've never seen before, and there was an underestimation on my part of what some of these boys could actually [do] ... some kids, just shocked me.
(DX: year 2)
The boys are much more motivated and have a sense of ownership over their work.
(OT: year 6)
Students are more motivated to read and write. The boys are coming in before school to read the airforce magazines. (NL: year 3)

> ... they were writing ideas, and they were all taking turns, and you know they were all in there together ... it didn't matter what sort of activity I put them in, they had a go. And they weren't afraid to ask for help either. They didn't sort of sit there and, you know, wait for half and hour and then come over. They just came and asked. Then they went back and did it, because they were really into it. (MM: year 2)

Along with engagement, teachers considered increased confidence among students to be another positive learning outcome that was associated with a variety of their intervention strategies. As evidence that students' confidence in themselves as literate subjects had increased, teachers reported, as examples, that 'more children offered opinions in discussion' (BM: year 7); boys' 'self-esteem' was 'boosted' as they felt 'a sense of achievement and success' (BM: year 3); and 'children enjoyed sharing their own writing with peers' and 'increased their confidence in reading to the class' (DF: year 2). Reports of improvements in student confidence ranged from generalised claims that the interventions had resulted in 'increased confidence in their [own] abilities' (NL: year 3) to quite specific claims that boys demonstrated a 'growing confidence to read in front of an audience, paying attention to expressive reading and the volume of their voice' (ME: year 2); that they experienced increased 'confidence to articulate' in groups and in front of the class (HM: year 6); and that 'all of the children developed confidence in speaking, sharing and working with others' (HM: year 2).

While most teachers were certain that their interventions provided fundamental steps towards improved literacy outcomes, namely improved engagement and confidence levels among boys - and girls - they also claimed improvements in a range of other learning outcomes including:

An increase in student vocabulary:
All the children have built up a vocabulary of frequently used words which related to their own writing - so not only has spelling improved but it has also become more meaningful. (DF: year 2)

I saw some big leaps in oracy which was my outcome - to see children using more extensive vocabulary and adjectives and things like that.
(DX: year 2)
Vocabulary tests showed significant improvements for boys. (SB: year 6)

An increase in the overall quality of work:
Students' writing in the recount and opinion genres is more descriptive and syntactically complex.
(OT: year 2)
[They] developed skills to improve the standard and quality of work produced.
(MM: year 6)
The quality of their writing has improved.
(MM: year 2)
Texts copied from the board are far neater with fewer errors and children put a greater effort into detail and presentation. (OT: year 6)

Improvements in behaviour and attitude:
But then there's one of the other boys who was at the bottom, had a behaviour problem, and I think that was a result of him not being able to read anything that was put in front of him or doing any of the writing tasks, and his behaviour has actually improved, because he has participated with the others and he's - even just to the smallest degree - he's improved and he can see that he's improved.
(DF: year 2)
[There have been] fewer behavioural problems.
(OT: year 6)
Students perceive themselves to be democratic decision makers.
(NL: year 3)
Boys' behaviour improved astronomically. The project was a huge benefit.
(SB: year 6)
And the capacity to operate as critically literate text-analysts:
[The project resulted in] increased student awareness of their roles as a text-participant and text-analyst.
(DX: year 2)
Students are able to more clearly articulate their understandings and interpretations of the texts ... [They have developed] skill and understandings as readers using the textanalyst and text-participant roles. The students have increased their understanding of the way that texts are constructed.
(DX: year 6)
[Students] had started doing critical literacy. [They] developed an awareness of ideologies embedded in stories .. and did a lot on stereotyping ... They've really taken it on,
especially the boys, that sort of problem-solving aspect of it. (NX: year 3)

Boys were engaged in deconstructing texts and analysing stereotypes.
(SB: year 6)
Teachers' claims that their interventions were associated with student improvements in these domains of literate practices are corroborated in the data presented within 'Changes in rating on the four-roles model' earlier in this chapter. It is also worth noting that teachers sometimes thought that they themselves were the beneficiaries of participating in the project. As one teacher volunteered in her written report:
... thanks a million for the recognition ... It has reinforced that I am on the right track, we don't get a lot of that in this lonely profession, do we.
(ME: year 6)

## Magnitude of improvement

Overall, teachers expressed strong positive evaluations of the efficacy of their intervention programs. On occasions, teachers even expressed surprise at unanticipated improvements - ripple effects - that appeared to spring from strategies that they had trialed:

> When I initiated this project I hoped that the whole class would benefit and this has, in the main, been the case. All the children have enjoyed their writing times and only on rare occasions have any of them said they couldn't think of anything to write about.

(DF: year 2.)

> And their attention to writing and speaking and reading different books and looking at different characters has also increased. So they're more enthusiastic about writing in general, and now that's sort of carried on to all the writing tasks we do. They're more enthusiastic about reading and they're more enthusiastic about looking into the text as opposed to 'Oh I can read the words'. So it's been really beneficial. I was really surprised to see not just the writing but all these other things that came up as well. (OT: year 2)

As this teacher continued to reflect on efficacy issues, she offered observational evidence that reluctant and willing literacy learners alike were enfranchised by the practices that she adopted as the focus of her intervention. Again there was a sense of surprise in her observation that her intervention could accomplish the kinds and extent of changes that it did. In this teacher's view, modification of her pedagogy was directly associated with productive shifts in student behaviour and in literate practices among 'capable' boys as well as among reluctant literacy learners:
... there were a few that were really resistant to writing and would not put pen to paper at all, and they're now writing sentences. And one of the boys I have, he just refused to do writing unless I sat and scribed what he was saying, but he's writing full page texts now and getting through all the task requirements. And one thing that surprised me was that the more capable boys were doing this ... I thought 'Oh well, they'll lag behind because they know how to do it'. But they were really good models and because they're able to do it, they've extended as well. So their texts are more complex, and they're writing more thoughtful opinion and things as well. But I found for the less capable group of boys - using things that they knew, using things that they are interested in they really participated. And even with the kids who were really resistant, they found it really interesting. So it wasn't even an issue to sit and write about it. They didn't even think 'Oh I'm writing'! It was 'Oh yeah, I really like this and this is what I think'. (OT: year 2)

Some schools even reported on the way that parents and others had begun to comment on changes in students' performance and to participate in activities as pedagogies focused on expanding repertoires of the self, of relationships and of cultures, reaching beyond the classroom to wider communities:
[I've had] positive comments from parents that their sons do not have to be prompted to do homework. [Boys] are doing more than required.
(HM: year 6)
[There has been] lots of positive comments from parents about the keenness of their children to talk to them about what they have been doing ...
(HM: year 2)
Parents have also played a vital role in the project - by inviting them in to see what and how the children are learning and by getting them to play a role in some of our dramas. (NL: year 3)

And when they visited the television station the students got a lot of praise and positive feedback from the production staff. They could see just how much these kids knew, how literate they were when it came to technology. I think they [the production staff] were really surprised at how competent the kids were.
(BM: year 7)
Only a few teachers expressed reservations about the nature and magnitude of literacy outcomes associated with their intervention programs. But these reservations, based
on acknowledgment of the difficulty of reliably estimating change in literacy outcomes within the timeframe, were tempered with a sense that the interventions had been valuable and that they were headed in the right direction:

It is difficult at this stage to make firm judgments about the benefits of the project, so far.
(DX: year 6)
This mag [magazine] hasn't really improved student learning outcomes hugely but is part of a bigger picture to provide interesting work throughout the year. Achieving is a big part of learning, getting boys reading at appropriate level for them to succeed and see their improvement ... Once boys are succeeding they are more willing to engage in all literacy activities such as the mag. Giving them ownership at this age is important.
(ME: year 6)
Well I don't know whether this is a result of my focusing on literacy, you know, and me being aware of these things but in the last month I'd say they have become very, very focused at quiet reading time ... They've certainly improved ... a lot of their research skills have improved. You know, they're sort of getting quite good at finding the key words in their little factual texts. Finding key words relevant to the heading that they're given.
(EB: year 3)

## Identifying literacy improvements in individual students

When teachers were asked to describe how one or two of the boys in their class had benefited from involvement in the project, few hesitated as this teacher did to nominate anyone as a clear beneficiary:

I haven't been into the project for long enough to report at length about the progress of one of two children. There are many small benefits I am seeing in individual children's progress as a result of the project ...
(TX: year 2)
Besides this hesitation, some teachers drew attention to the complexity - sometimes the hopelessness, in their perception - of working with students whose lives outside of school compounded any difficulties they faced in becoming literate at school:

I have one boy, so damaged by life, just entered the class two or three weeks ago, way below the level of any other boys and he is a challenge. He is not interested at all in learning, maybe because he has other things on his mind, like if he is going back to the foster home. Children like this almost need one to one constant attention. He is on Ritalin and is
> diagnosed ADHD ... lots of problems. And he wrote one thing for the mag [magazine], I think three lines. For him I publish every day. He writes it out on the computer and draws a picture, although today he won't even do that. The rest of the class are finding themes in Gary Crew picture books at the moment in twos and threes [while this] boy is disrupting. He was in the groups but was teased as he smells strongly of urine today and opted out, in fact, he has opted out to work alone in the quiet room - these are the boys we may never reach ...

(ME: year 6)
Alongside these expressions of doubt and regret, teachers commonly offered examples of boys they considered had benefited greatly from the intervention practices they had put into place:

I have had two real breakthroughs! 'Bray' (my ADDaggressive boy who has very low self-esteem and very poor literacy skills) and 'Briley’ (extremely poor literacy skills who earlier in the year would do everything to avoid work) are writing and indeed are asking, 'When is it writing time?'. (HM: year 2)

One of the boys in my class has especially shown huge improvements during the course of this project so far. 'Jeff' tends to be a rather shy boy who generally only participates in class discussions when prompted by myself. As the project has required a considerable number of whole class and small group discussions, 'Jeff' has been required to share his ideas. He has become a more willing participant, and obviously has an increased sense of confidence ... I have also noticed an improvement in his writing and his reading. He is more willing to 'have a go' and has less concern for making errors. (SB: year 2).

Boy A appeared to be one of the less capable students who had great difficulty becoming interested and maintaining his focus during literacy activities. Although he was quite capable, his writing was below average in vocabulary, syntactic structure and description. Often he would write no more than a word or a sentence and would then refuse to do any more work. Even incentives such a free time or one-onone assistance failed to alleviate this problem. This pattern also occurred for reading. The benefits for boy $A$ were immediate. He started to bring a large selection of texts from home that complemented the class theme and spent more time engaged in reading. He was also more enthusiastic about writing and the resistance disappeared. He felt proud of his writing as he was able to produce pieces of work that were above average in length and creativity. His vocabulary and
syntactic complexity has increased although he still prefers to verbally recount the descriptive elements.
(OT: year 2)
One boy has improved tremendously. His literacy is still far below the average, but he has improved greatly. His writing is far neater and better presented, but it is still an arduous task for him. His spelling has improved, but he still has difficulty with unusual words (not spelt phonetically). His expression in reading is more appropriate, but his comprehension is progressing at a slower rate. This student seems far more content in class and puts a greater effort into presentation. He seems to enjoy school and the subject matter chosen. He has a new desire to better himself, and has begun to give tasks a go before he gives in and asks for help.
(OT: year 6)
Boy 1: Even though this child has low literacy skills he has made a significant effort to improve the standard and quality of his work. The self-interest theme provided him with lots of background knowledge and familiar material to work from. He demonstrated a lot of interest and showed initiative when approaching his work. Even though the child still needed guidance and assistance with activities (e.g. structure of a text type), he didn't require motivation and ideas to write about from the teacher the way he usually did. He was actually quite proud of himself as he knew more about a topic than I did (football). He liked what he was doing and that in itself provided him with the determination to do his best. The presentation of his published work showed how much he was enjoying doing the activity.
(MM: year 6)

## Executive staff's reflections on the efficacy of the projects

Executive staff too reflected on the efficacy of the projects that ran in their schools. As with the teachers, a few of these staff were reluctant to make claims that linked project interventions with visible outcomes for students while others were more certain that students and teachers alike had gained from the experience. Expressions of hesitancy appeared to be underpinned by the same concern that some teachers had expressed about time-frames and the plausibility of drawing causal links between one event and another:

I think it's probably really hard to judge just yet. The two teachers who were selected to be a part of it both have got a particular interest in teaching literacy anyway and doing a great job with kids.
(MM: P)

By comparison, executive staff who were convinced that the projects were linked with productive learning outcomes offered particularised observations about how the projects had operated to produce those effects:

The two teachers who worked on the project were willing to take on new mind sets and to investigate the possibilities of drawing on new pedagogies.
(BM: P)

> Well in terms of the big picture, I see it as boys being happier to do the sorts of work or the tasks that they like ... I see from those two [project] classes more boys coming to me and talking about ... what they were doing in the project. And I see an enthusiasm and a happiness that I haven't seen before. I also noted the number of boys, particularly from the year 6 class, that didn't end up here, asking me for something to do because the teacher had said 'You're not on task in the room ...' And that over a period of time, for those two classes, it [off-task behaviour] has decreased, for the other classes, it hasn't. So in terms of that kind of data, they're more enthusiastic, they're more interested in what they're doing, and they're more willing to talk about what they're doing. (DF)

Some principals even claimed ripple effects that were likely to carry over into the coming year within a whole-of-school context:

> There was real excitement in the school about our participation in the project. It was a really successful program for us to be involved with. It married so well with what we wanted to do here. Once the two staff had put their hands up and volunteered, a lot of professional dialogue opened out in the school. Other teachers looked at these two classes and began to talk about the issue. We hope to capitalise on what has been done in the projects and to showcase the work that [names of teachers] have done. (SB: P)

## And what of the girls?

Teachers who participated in the intervention phase of this project were united in their commitment to improving literacy outcomes for boys. They were also united in their commitment that literacy activities should not deteriorate in their attractiveness to girls. At interview, teachers in co-education classes volunteered numerous comments about girls' responses to the interventions. None thought that the intervention strategies that they had trialled had jeopardised girls' opportunities to learn or to participate in the literate practices of the classroom. Those who thought that their interventions had worked with boys, also thought that they had worked with girls. In teachers' observations, it simply was not the case that girls were excluded
through the processes they employed to engage more boys. Good pedagogy, it seems, worked to enfranchise both boys and girls. As one teacher summarised:

> Honestly, I still think that all students are benefiting from this project, not just the boys.
> (OP: year 2)

## Summary and conclusions

In summary, data analyses reported above suggest that teachers in this study may have been confronted by emerging, yet still weak, gender effects associated with literacy outcomes. While socio-economic status proved highly significant in predicting performance scores for reading and writing at both year $2 / 3$ and year $6 / 7$, this was not the case for gender. At the first level of analyses, gender was associated with poorer performance from year $2 / 3$ boys compared with year $2 / 3$ girls in writing, but not in reading, and with poorer performance from year $6 / 7$ boys compared with year $6 / 7$ girls in both reading and writing. Nevertheless, the most conservative statistical analysis, using the Bonferoni adjustment, leads to the single claim that the year 6/7 boys in this sample performed less well than the year $6 / 7$ girls in their classes in writing only.

These results, based on the limited number of schools involved, are reasonably consistent with results found elsewhere. For instance, statistical analyses of State and national literacy results repeatedly show that socio-economic status is a more powerful predictor of school-based literacy achievement than is gender (See Chapter 3). Research studies also suggest that gender effects augment over time. Between the early years of school and the senior secondary years, the gender gap in literacy outcomes appears to widen (see Chapter 3). Hence, in this study it is at the year 6/7 level where gender appears as a statistically significant effect. Results for this study are also consistent with other studies in that the statistically significant effect associated with gender is identified within the domain of writing - an expressive, rather than receptive mode of literate practice. This is consistent with findings from the National School English Literacy Survey (Masters and Forster, 1997) which identified wider gaps between boys and girls with respect to expressive, as opposed to receptive, modes of practice. Masculinity may be deeply implicated here where the literate demands of the classroom call on boys to be expressive in particular ways, about particular materials, a quality not normally associated with social understandings of what it means to be a boy.

In this study, it seems that teachers may have responded to the early signs of boys' disengagement with literacy as it is commonly practised at school. As reported in Chapter 6, teachers repeatedly claimed that they needed to engage boys more fully in literacy activities and to convince them of the functionality and value of such engagement. Teachers' interviews and reflections were iterated with claims about boys' lack of focus, concentration and commitment to literacy learning. Teachers in this study were persuaded that many boys were not on course to optimise their literacy outcomes as measured at school. It is likely that these teachers were picking up on the first signs of these developments.

Teachers reported considerable diminution in the numbers of boys they felt would face literacy difficulties in subsequent school years as a result of their interventions. While we issue cautions about the reliability and validity of these estimates, the consistent picture that emerges is one that supports the efficacy of changes in classroom work, even for the brief time available in this project. Estimates across the four roles used to frame this section were positive, the least change being reported in code-breaking capabilities. Since few teachers aimed their interventions specifically at this resource, with more focus on other aspects of the literacy repertoire, this is not surprising. What is notable is the nomination of visible changes in such a short timeframe. Similarly, teachers reported in their interviews on the success of the interventions, and were able to enumerate particular instances of substantial growth in awareness and performance in literacy learning. In some cases, these reports of success were lavish, and most teachers attested to a change in their own awareness of issues to do with gender and literacy.

## 8

## Conclusions and recommendations

In this final chapter we draw together teachers' views on the enhancement of boys' literacy learning and our own recommendations based on our combined experiences of trialling and supporting the classroom intervention strategies of Phase 2 of the study. In the first section of the chapter we synthesise teacher-recommended lines of inquiry and suggestions for classroom action as well as their recommendations for moving the boys and literacy agenda forward at systems' levels. In the second section of the chapter we reflect critically on the wider patterns of ideas and the conceptual frameworks that teachers drew upon as they articulated their perspectives through interviews, written reports and electronic communication with us. In doing so, we highlight some of the problematics associated with debates about boys and literacy, and draw this report together with our conclusions and recommendations for theory, research and practice.

## TEACHERS' RECOMMENDATIONS

Before moving to the teachers' recommendations, it is important to acknowledge a number of caveats that govern what we report here. First, teachers who contributed to the intervention phase of this study participated with members of the study team in a one-day training session prior to designing their research plans. As part of the training day, teachers worked through theories and data related to boys' literacy learning and outcomes. While some teachers were already aware of some of the contentious issues associated with working on boys and literacy, the training program specifically addressed the dangers of essentialising boys: of treating boys as though they all experienced the same kinds and levels of difficulty with literacy learning; of thinking about and responding to boys as though they were an homogenised group undifferentiated by their interests and success in meeting the literate demands of the school; and of overlooking the literacy needs of girls. Teachers in Phase 2 of the study accessed research publications (Alloway \& Gilbert 1997b, 1998) and discussed at the training day the ways in which socio-economic, cultural and linguistic background features of students, the geographical location that the students inhabited, and Indigeneity interacted with gender and impacted on literacy outcomes as measured at school (see also Chapter 3 for discussion).

In many ways, the recommendations that teachers made with respect to 'boys' reflect a shorthand for dealing with the limitations of the discourses available to them to draw upon. Consequently, teachers spoke about 'boys' and 'boys' strategies' while simultaneously acknowledging that not all boys were the same. No teacher expressed the view that all boys in their class were struggling while all girls were doing well. Nevertheless, teachers in this study faced the daily reality of working with groups of boys whom they considered to be alienated in literacy classrooms. They acknowledged that it was usually the case that boys in their classrooms dominated the lowest levels of literacy achievement, while some girls also struggled.

In our view, teachers generally did not operate in essentialist modes but, like us, they could not afford the luxury of an open relativism that left them no ground from which to speak about 'boys', as though 'boys' had no category status. In terms of the dialectic discussed in detail in the second section of this chapter, the teachers in Phase 2 of the study worked within a realist dimension by facing challenging demands from school systems that they improve the literacy levels achieved by boys at school. They sought to devise strategies and to make recommendations so that educational activities could proceed. In our judgment, these teachers were aware that their recommendations would, and should, remain debatable.

As we move through this chapter we make a series of recommendations that have been distilled from teachers' and our own experiences of working in this study. While the recommendations operate at a variety of levels in terms of immediacy and application, they are linked by their common focus on improving literacy outcomes for boys at school. The recommendations appear also in the Executive Summary (Chapter 1).

## Teachers' recommendations to colleagues

Acknowledging the contextual specificity of classrooms and the particularity of groups of boys with whom they worked, the teachers in this study made recommendations for their colleagues to trial. Towards the end of the intervention phase, as a way of gauging the efficacy of particular strategies and their applicability to other classrooms, we asked teachers:

If you were to make recommendations to your colleagues at your school about how they could improve the literacy learning and teaching of the boys in their classes, what specific things would you recommend?

Not surprisingly, teachers' recommendations revolved tightly around the kinds of strategies that they judged to be successful in terms of producing promising changes in boys' orientation to literacy learning and in their uptake of literate practices in the classroom. Perhaps also not surprisingly was the array of recommendations made by 24 teachers in 12 different schools, and the way they clustered into the interpretative framework based on expanding repertoires of (re)presenting the self, of relationships and of engaging with the culture discussed in detail in Chapter 6. In Figure 8.1 we depict graphically the ways that the recommendations are interlinked in ways that reflected the patterns of interventions that the teachers had attempted.

For instance, in terms of expanding repertoires for engaging with cultures, teachers' recommendations included the 'use of technology' (BM: year 7), providing 'opportunities for students to draw on a range of literacy practices and activities that are a part of everyday life' (DX: year 6), having a 'clear link between the classroom and real life experiences (ME: year 2), and selecting 'resources (texts, videos etc) that the students will find interesting and engaging' rather than selecting them because 'they meet curriculum and lesson needs' (OT: year 2). There were numerous references to the ways in which teachers might incorporate everyday events, popular culture materials, electronic technologies and multimedia, multimodal formations of work to capture the interests of the most reluctant boys.

In terms of relationships, teachers' recommendations centred around a variety of strategies aimed at expanding boys' repertoires for relating as learners and as participants in literacy classrooms. Some teachers recommended trialling buddy systems' (OP: year 2), 'small-group focused episodes' and 'fluid groups to address the varying needs of boys’ (DI: year 3). They also recommended that teachers work with 'negotiated studies' and pedagogies that encouraged more 'cooperative learning' (ME: year 6). In the interests of producing better relational networks, it was suggested that teachers build more 'positive teacher-student relationships' (NL: year 7) and that they 'democratise the classroom' thereby allowing boys a greater sense of shared power, authority and self-efficacy within the classroom, and of responsibility for their learning (NL: year 3).

Considering the relational aspects of learning, two teachers recommended single-sex groupings as being beneficial in particular coeducational contexts. One was motivated by her perception that girls were likely to experience diminished opportunities to participate in classes where, in her experience, even academically capable girls had submitted to boys' classroom 'take-over tactics'. Single-sex and recombined groupings with girls were fluidly operated depending on the demands of the tasks (FM: year 6). In the other case, the teacher, who managed an all-boys class was motivated by a commitment to contesting relational aspects of masculinity as they impacted on boys' lives and learning. While this teacher strongly supported the separate grouping of boys, he warned that the task was difficult. The year of the single-sex trial he regarded as the most challenging of his teaching career; he felt worn out by the level of effort required (SB: year 6).

Similarly, many recommendations clustered around teachers' commitment to widening the range of acceptable ways in which boys might (re)present themselves in literacy classrooms. By way of expanding repertoires for (re)presenting the self, teachers' recommendations included 'getting to know students' (NL: year 3), 'caring about students as individuals' and reprimanding them 'in private rather than in front of peers' (NL: year 7). In highlighting the importance to literacy learning of a positive sense of self, teachers emphasised the need to draw on choice and personal experience, just as they had in their interventions. There were a range of ideas related to using resources that 'students can relate to themselves and their past experiences' (OT: year 6) and suggestions that teachers 'allow student ideas and interests to guide part of their teaching and learning programs' (OP: year 6). They also recommended a more active and embodied 'hands-on' approach to literacy learning (ME: year 2) with the prospect of producing a more productive relationship between the literacy pedagogies enacted in their classrooms and boys' enactments of themselves as masculine subjects.

## Teachers' recommendations to school systems

The recommendations that teachers made to colleagues were grounded in the interventions they had attempted as part of the study. Meanwhile, the recommendations that they made to systems beyond the school drew on their histories as teachers as well as their experiences of working within the study. Predictably, given the complexities of dealing with the boys and literacy agenda, teachers spoke of the need for better pre-service education, more resources within schools, smaller classes, more teacher-aide time, professional development opportunities, professional
mentoring, and improved partnerships with families and communities. These themes were often reiterated in teachers' recommendations.

While these recommendations to systems might seem predictable, they do have substance within the context of many of the recommendations that teachers made for improving literacy outcomes for boys. For instance, as we circulated through the schools, teachers explained that if they were to facilitate students' learning of new literacies for new times, then they themselves required assistance in developing higher-level competencies in interacting with electronic and multimediated texts. There was a need for more intensive professional development and for funds to support innovative practices. At one school, the principal described the process of technologising her school as 'a real bucket job'. Money disappeared into the bucket as 'kids wanted to use the technology more and more'. Meanwhile, 'high consumable costs' included thousands of dollars of Internet time and ink for colour printers, while expensive digital cameras and data shows were seen to be 'just the accessories' (BM: P).

A common observation among teachers attempting to improve literacy outcomes by expanding repertoires for engaging with cultures was that they and their students had limited access to new technologies, particularly those that would encourage the development of newer forms of multimediated literate practices. Few teachers had access to their own computer at school to familiarise themselves with emerging literate practices. The argument was put to us that staff working in business offices generally had more opportunity to learn these literate forms than do teachers. One teacher's recommendation encapsulated a range of responses from her colleagues:

> I would highlight the need for professional development to inservice teachers. Classrooms and schools also need more access to technology. One computer in the classroom shared amongst students provides little opportunity for students to develop understandings and use it effectively for the right purpose.
> (MM: year 2)

Teachers across the three States commented on the difficulties they faced in contemporising the literate practices that they promulgated at school and the lack of resources necessary to engage more teachers in potentially transformative pedagogies. In brief, teachers were concerned that if they were to continue to trial strategies, and to debate them, then systems must make available to them the necessary support to optimise their chances of succeeding with boys and moving the agenda forward in informed and collegial ways.

Figure 8.1: Teacher recommendations for improving boys' literacy outcomes


## Recommendations for theory, research and practice

In this final section we draw together our conclusions from this study in the form of recommendations for theorising and debating issues to do with boys and literacy, for researching the topic and for teaching literacy to boys.

In the reports teachers gave us, the interventions they attempted in their classrooms, and the discussions in the interviews, we found variations on the major themes described in the review of research and theoretical literature presented in Chapter 3. Various inflections of accounts based on biological and role-model theories and
educational and sociological explanations currently traverse theories and debates about boys and literacy. Theorists, researchers, educators and community members draw on these accounts and often invest in one or another of them as definitive, or at least compelling, descriptions and explanations of the problem of boys' literacy performance.

In considering debates about boys and literacy, and the theories that inform them, it is important to take account of these investments and how they consolidate and change. In his analysis of the sociological, intellectual and political history of statistics, Desrosieres (1998) described the fundamental dialectic driving the conduct of science in general. His observations are usefully applied to literacy education and the issue of boys' literacy performance. He argued that the 'durably solid forms' of the educational world must, on the one hand, remain always beyond debate so that educational activity can proceed - reading levels, programs, classroom strategies, reading and writing disabilities, levels of engagement, test scores, literacy outcomes, target groups, and all the rest. At the same time, however, these 'durably solid forms' must remain always debatable so that education can change. That is, educators must behave as if these fundamental vocabularies of literacy reflect durably solid forms; the contradiction is simultaneously true - that these forms are always debatable, always amenable to more refined or productive understandings and activities (see Freebody \& Luke in press).

In one view ('positivist', 'realist' and so on), the phenomenon of 'the problem of boys' literacy' is taken to exist, and to exist in some quantity, independently of the methods, sites or conditions of measurement. In this view, the issues here are the reliability, validity and utility of these representations. Contesting that view are interpretivist positions that emphasise the local, variable, contingent and multiple nature of literacy education practices. In this view, the very existence of 'the problem of boys' literacy' is partly a matter of the conventions that have developed in the work of naming, identifying, assessing and explaining it. Thus it remains a matter of variation and debate.

The crucial point for Desrosieres was that the tension between these perspectives realist versus interpretive accounts of social experience - is the driving engine of inquiry and change:

> In science-in-the-making (or 'hot' science), truth is still a wager, a subject of debate; only gradually, when science cools down again, are certain results encapsulated, becoming 'recognised facts', while others disappear altogether. (p. 5)

In the changing cultural, linguistic, employment and socio-economic environment in which education in contemporary Australia operates, it is arguable that the scientific study of boys' literacy learning in school may never quite cool down. Certainly the input of educators and parents into this study was hardly cool, either in the sense of their varied understandings of the significance of the problem, or of their comfort with one or another 'compact' account of its etiology or its solutions. Hesitations, retranslations, and conflicting interpretations characterise the data taken as a whole. The specific recommendations for theorising and debating boys and literacy listed below reflect our 'wager' on the ways forward.

## A theoretical framework for action

The framework we developed to conceptualise and theorise work on boys and literacy is built around the notion of repertoires of practice, a framework we developed in Chapter 6. The framework comes directly from an approach to literacy as social practice as outlined in the framework for literacy education (Chapter 3), and draws on the notion of a 'repertoire', an orchestrated set of capabilities and dispositions for acting purposefully in the world. The study has adopted the notion of multilayered repertoires of practice, as a way of conceptualising the complexity of working in the boys and literacy field. We have taken the position that boys' repertoires for (re)presenting themselves in the world, their repertoires for relating to others, and their repertoires for engaging with cultural knowledges, practices and meanings, all need to become aspects of the attention needed to effect shifts in engagement and achievement levels in the literacy classroom.

- A repertoire for (re)presenting the self: We have argued that boys can be offered ways of experimenting with a wider range of possibilities for (re)presenting themselves in the classroom, a variety of acceptable ways of conducting one's presence and activity within the institutionalised setting of the school. An understanding of the ways in which masculinity is physically, psychologically and socially 'performed' and 'enacted' is essential if boys are to extend their repertoires of the self.
- A repertoire for relating: We have pointed to the need to reconfigure the social relations of school work, including students' adoption of different positions of power, authority and agency in the classroom, including greater latitude in the selection of materials, the forms of tasks, the organisation of the work, and the means of assessment. This means addressing the ways that masculinity endorses and authorises particular relationship modes, and how these modes can be extended and broadened. Inevitably, this repertoire will have close links with the expansion of the repertoire of cultural engagement for boys and with the repertoire for (re)presenting the self.
- A repertoire for engaging with and negotiating cultural knowledges and meanings: We argued that an examination of the teachers' interventions in Phase 2 of the study shows them looking beyond the standard school work, to work with literacy-related materials from other cultural sites and formations, including contemporary commercial youth culture, the integration of a wider range of modes and technologies of expression (oral, written, electronic, musical, visual, and so on), and cross-cultural or imagined (for example, fantasy) settings. Part of this entails negotiating the hyper-masculine world, and the meanings and ways of being constructed through such a world.

We have found this model to be valuable in its ability to address the various layers of student engagement and participation in school work, and to take account of the particular needs that boys may have in terms of the backgrounds they bring with them into the classroom. However the model needs to be situated within a set of precautions concerning assumptions about boys' learning. As we have shown in this
report, much is made, by both teachers and by parents, of the need for boys to engage with 'real-life experience', with popular culture and the texts of the real world. Much is also made of the importance of finding ways to motivate boys, and to engage them with the work of the classroom, and of the need for boys to see relevance in the work they do at school.

In this section we briefly consider difficulties that may be associated with each of these claims, in the terms of the model we have developed. We suggest how each of these issues might be reframed and reconfigured to address more adequately the needs of boys as literacy learners.

## Bringing the outside 'in' and using the 'inside'

Almost a century ago, Edmund Huey (1908) summarised the research on reading education in primary schools. He concluded, among other things, that teachers did not relate the learning of reading to 'the culture of the child outside the school'. This led Huey to characterise early-reading education as an 'old curiosity shop of absurd practices'. The challenge posed by Huey has motivated many of the interventions described in this study.

Three issues arise from placing the culture outside the school at the centre of theories and debates about boys' literacy. The first is that commercial interests have a marketdriven motivation to heighten the contrasts between adult culture (including teacherculture in school) and youth culture as a selling point. Thus the importation of 'realworld' culture into the classroom is by no means a straightforward matter. It may represent an incursion into potentially hostile territory, and the validation of a cultural formation that is resolutely constructed by its opposite - school culture. Secondly, cultures are not singular formations and thus cannot be singular explanatory concepts. To homogenise them for the purpose of clinching the debate about boys and literacy is to ignore the complex, open-textured and labile nature of cultural formations, a move that runs contrary to perhaps the most looming feature of classroom teaching, from teachers' perspectives. Which features and artefacts of culture - which subcultures' know-how, theory and ethic - will find their way into a classroom, and how those features and artefacts will be worked, reworked and critiqued for the benefit of boys' literacy learning, are the critical questions.

This point leads to the final issue that arises from a more explicit and comprehensive importation of the culture into the classroom: the recognition of hyper-masculine and hyper-feminine discourses in particular formations within the surrounding culture. In the short term, schools cannot make these discourses go away, simply because they are marketing moves serving the commercial interests of many sectors of the media and culture industries. While schools can play a part in the longer-term evolution of more equitable and less misogynistic representations of gender, the importation of out-of-school materials brings even more to the fore the need for critical-analytic work as part of the development of fully and autonomously literate young people.

Literacy is often spoken of as a unitary capability standing somehow separate from the knowledge and social conditions in which it is acquired and practised. While literacy practices are relevant across the curriculum and, indeed, make the curriculum possible and accessible, this is because literacy practices of different kinds are
constitutive of the ways in which curricular areas embody their particular ways of knowing. Much of the debate about re-engaging boys in literacy learning has to do with providing what are essentially extra-curricular activities, even though these activities entail forms of literacy artefacts and activities.

What was not well explicated by the teachers are the ways in which these extracurricular activities could form productive bridges into the powerful curricular knowledge areas and processes. While some literate practices can be developed within the context of everyday or popular-culture artefacts and activities, these are distinct from the ways in which the curricular areas put literate practices and processes to work in the representation and acquisition of knowledge.

Explorations of everyday and popular-culture materials have some worth in themselves. It is acculturation into the powerful ways of knowing about and inquiring into the world offered by the curriculum areas, however - the natural and social sciences, arts and humanities - that is the distinctive contribution of schooling to the acculturation of young people. These non-commonsense ways of knowing about and inquiring into the world do not arise of themselves from an introduction to literate functioning brought about through exposure to everyday and popular-culture materials and the everyday activities that attend them.

## Motivating boys

This point about curricular knowledge also figures in arguments about the motivational value of conventional school activities. Many debates about boys' literacy appear to align with boys' interests and dispositions by validating those discourses that freely assert that 'school is boring', that it is a 'sea of blah', and so on (Rowe 2001). What needs to underpin theories and debates about boys and literacy are ideas about engaging the need to acquire school knowledges as well as procedures for understanding new literate forms and technologies. To account for the differentials in boys' performance on literacy tests by reference to the banality and mindless 'busy-ness' of school work is to do three things: first, it is to characterise girls as being happier, or at least more comfortable, with banality and mindless 'busyness'; secondly, it is to mistake a symptom of inappropriate learning experiences for a cause of inadequate learning; thirdly, it is to apply a category-wide deficit theory to teachers. It is to imagine that theorising variations in literacy test performance levels is the same as trying to figure out more refined formulations of whose fault test score differences are, rather than looking for the finely textured ways in which cultural formations are both reflected and adapted through institutional schooling. Many children find school engaging or at least worthwhile; for many, the school is a haven of rationality and physical and emotional safety; and the relationships many students form with teachers and peers are significant and productive.

Many of the teachers who participated in this study began with the premise that standard school activities did not engage boys, and that this was the prime explanation for their lower literacy scores. But assuming school is typically boring and that boys can be spared this boredom through the inclusion of everyday and popular materials is to assume that the charge of teachers to pursue acculturation into powerful curricular bodies of knowledge and ways of knowing is somehow secondary to the mastery of literacy as it is measured in literacy tests; it is to 'dumb down' the
major course of knowledge development that schools have to offer in favour of what is, at best, a momentary motivational strategy.

## Making literacy 'relevant'

In this study, over the brief period of time in which teachers undertook their interventions, we noted that the exploration of communicative artefacts as social, cultural and technological objects was generally taken to be a brief motivational move aimed at re-engaging student's interest and success in school literacy. As the teachers in this study showed in their interventions, the use of communicative artefacts from outside the school has the potential to engage boys and to expand their repertoires of the self, of relationships, and of cultural practice.

Teachers need to see 'relevance' as evolving through success for young people, not as a fixed feature of the classroom, or an unchanging attribute brought by boys and girls into the classroom. Again, much theorising about the reasons for boys' performance has traditionally posited a factor such as 'motivation' as a prime cause of differential performance. This binary is another obsolete feature of conventional educational discourse. It is clear that successful learning, motivation, and a sense of relevance and interest interplay continuously throughout the course of young people's learning. That is, success leads to enhanced motivation and further curiosity, leading to further success and to an expansion and redirection of interests and a sense of relevance, and so on. For teachers, this means not assuming that the motivation levels of a student or a category of students such as boys are a fixed attribute, or that what they may or may not find relevant is simply a durable, static feature of their experience for which teaching needs to constantly compensate. This places classroom activities firmly into the causal cycle of enhancing performance and motivation and expanding students' curiosities. While it is clear that early difficulties in learning to read and write, arising from whatever set of factors, can create serious motivational barriers as the school years progress, it is equally the case that a response to this based solely on motivation and re-engagement, rather than on developing new ways of achieving success in the powerful and valued literacy practices of a culture, will enjoy only a limited shelflife.

While the repertoires of practice are obviously a useful and valuable way of organising strategies for addressing issues related to boys and literacy there are potential difficulties associated with their use. As we have indicated, one of the difficulties lies in assuming that it is sufficient to engage with cultures to produce a shift in boys' literacy achievements. This may be necessary initially as a motivational tool but is likely to be insufficient in terms of producing the kinds of literate competence essential for operating in the literate cultures of new times. Another difficulty lies in the nature of the cultures being imported into the classroom. As we have indicated in this chapter, discourses of hyper-masculinity dominate many of the popular youth media and require modes of textual engagement that make their practices of production and circulation visible and open for scrutiny. In addition, boys bring a variety of lived experiences of masculinity with them to the classroom. These experiences inevitably affect the ways in which boys can engage with repertoires of practice in important ways. As we have described more fully in Chapter 6, being a boy at school influences the (re)presentation of self, the willingness to enter into relationships and preferred modes of cultural practice. This is not to assume an
essentialist position suggesting that all boys perform as boys in the same ways. Rather it is to acknowledge the powerful impact of the social and cultural discourses of gender within which young Australians live out their lives.

## Recommendations

Boys are not all the same and cannot be treated as an homogeneous group. They bring different social and cultural backgrounds to the literacy classroom and these need to be given serious consideration. However many boys share some common experiences of 'being a boy' in Australian society, and are likely to be influenced by dominant discourses of masculinity. The ways in which these discourses affect the life and learning of a particular boy in a particular classroom and community are always matters for empirical inquiry, calling for ongoing observation and analysis by teachers and researchers.

## Recommendation 1:

That, as part of their ongoing community analyses, schools
and teachers acknowledge and explore the varied social,
cultural and ethnic backgrounds that boys bring with
them to the literacy classroom, paying particular attention
to the ways that constructions of masculinity influence
boys' behaviour and learning in literacy.

We have taken a practice- and futures-oriented approach to literacy that attempts to take balanced and realistic consideration of the communicative tasks that learners face. To become functional and independent members of literacy-saturated information societies, students must master a variety of forms of communication. The following definition of literacy is compatible with our approach in this study:

Literacy is the flexible and sustainable mastery of a repertoire of practices with the texts of traditional and new communications technologies via spoken language, print, and multimedia. (Luke, Freebody \& Land 2000, p. 20)
'Literacy' is thus seen as referring to particular forms of communication that themselves entail particular valued repertoires of physical, psychological, social and cultural practice, demeanour and disposition. Effective literacy education therefore involves practice in these valued repertoires, in the context of accessing the powerful curricular ways of knowing and finding out about the world, and in the knowledge that the communicational environment in which young Australians live is undergoing a process of rapid cultural and technological change.

For policy-makers, this revisiting of literacy means a realistic interrogation of currently held definitions of literacy, explicit or otherwise, about whether those
definitions can do the work of addressing the genuine literacy demands that young people do and will face. Assessment regimes and professional development need explicitly to incorporate but expand on the 'old literacy basics' if they are to have anything other than short-term, test-based consequences for students and schoolleavers.

For teachers, this means developing and sharing a vocabulary for debating and working up school- and teacher-based pedagogies and assessment and monitoring programs. It means as well an urgent need to consider, debate and research the relationships between, on the one hand, teaching strategies and assessment routines and, on the other, students' systematic apprenticeship in the forms of curricular knowledge.

## Recommendation 2

> That schools, teachers, researchers and policy-makers adopt a practice- and futures-oriented approach to literacy in their work to improve boys' literacy outcomes.

When working to improve boys' literacy outcomes, teachers need to employ a range of effective pedagogical strategies that will engage students actively, purposefully and democratically in an effort to position them as successful literacy learners.

## Recommendation 3

That teachers adopt a range of pedagogical strategies in the literacy classroom that are designed to promote an active, purposeful and democratic learning environment.

In conceptualising an approach to boys' literacy learning, teachers should consider the potential of expanding the repertoires of practice available to boys in literacy classrooms. This will mean focusing on expanding the range of practices available for (re)presenting the self, for relating to others, and for engaging with cultures. It means therefore developing and sharing a vocabulary for understanding, debating and acting on sets of ideas that relate directly to the social dynamics of classrooms. These ideas also need to inform policy and research initiatives in the area of literacy, rather than being seen as important but separate, disconnected considerations.

Classrooms must accommodate a broader range of (re)presentation modes of 'the self' if boys are to engage and achieve in literacy classrooms. Teachers will need to provide for more active and dynamic expression, to provide for more hands-on opportunities to learn, to be responsive to choice and personal experience, and to focus on maintaining a positive sense of self. The ways in which masculinity is
'performed' and 'enacted' through the body need also to be considered as part of these modes of (re)presentation of the self.

## Recommendation 4

That teachers construct literacy classrooms as active environments for learning by maximising 'hands-on' learning through multiple textual modes; by providing opportunities for students to take control of their own learning; by taking account of students' backgrounds and experiences; and by focusing on maintaining a productive sense of self among students as literacy learners.

Classrooms must accommodate a broader range of relationship modes if boys are to engage and achieve in literacy classrooms. The social relations of school work need to be reconfigured so that students are allowed to adopt different positions of power, authority and agency in the classroom. For boys, in particular, this may mean supporting them to learn how to operate both as learners and as participants in the literacy classroom and constructing a classroom environment where students' knowledges and skills are valued and respected.

## Recommendation 5

That teachers construct literacy classrooms as democratic spaces where authority and agency are shared; where students are treated with dignity and respect; where students' knowledges, opinions and contributions are valued; and where students learn to work collaboratively and cooperatively.

Classrooms must accommodate a broader repertoire for engaging and negotiating cultural knowledges and meanings if students are to achieve in literacy classrooms. This will involve working with literacy-related materials from a range of cultural sites and formations, including contemporary commercial youth cultures and a wider range of modes of expression including oral, written, electronic and visual. For boys in particular, a focus on multimodal texts and technologies may be beneficial in improving literacy outcomes. With the importation of contemporary commercial youth culture into the classroom come both the opportunity and responsibility to engage with its powerful discourses - about gender, race, class, sexual orientation, (dis)ability and so on - in ways that make those discourses objects of critical study. Within the particular terms of this study, this means explicit considerations of how
both popular and curricular texts may, whatever else they may do, reinforce the already heavily patrolled gender borders of daily social experience.

## Recommendation 6

That teachers engage and work with cultural knowledges and meanings by focusing on the cultures of the 'real' and the everyday, popular culture, electronic technologies and multimediated texts. In doing this, teachers need to consider systematically the ways in which such activities can connect productively with curricular learning, and ways in which critical, analytic work can be developed in the use of potentially misogynistic and institutionally hostile materials.

Teachers cannot pursue a boys and literacy agenda by themselves. They must have systems support in terms of staffing, professional development, technology support and resources.

## Recommendation 7

That, to improve literacy outcomes for boys, schools need school systems' cooperation to provide increased levels of learning support, professional development and technology infrastructure and support.

Further research in the boys and literacy field should address the potential of the theoretical framework proposed in this study of expanding repertoires of practice and its association with improved literacy outcomes for boys. Exploring the potential for a framework such as the one developed for this study brings with it a number of associated research design requirements, among them:

- the systematic construction of samples to reflect a range of social, cultural and demographic factors that may be associated with the development of different forms of masculinity;
- the construction of epidemiology-styled, longitudinal studies that allow:
- the literacy-learning consequences of a variety of school and classroom differences to be documented;
- different ways in which curricular literacies are engaged and mastered to become evident over time; and
- a view of just how significant traditional 'target' groupings are in their 'fully aggregated', interactive, natural environments as
predictors of the literacy learning progress of various categories of students that are not well served by current conventional classroom experience;
- the explicit interplay of quantitative and qualitative analyses of data collected in different sites of cultural and literacy learning for boys (schools, homes, popular media experiences, and so on).


## Recommendation 8

That future research address the effectiveness of the three repertoires model - repertoires for (re)presenting the self; repertoires for relating; repertoires for engaging with and negotiating cultural knowledges and meanings - for improving literacy outcomes for boys.

## References

Adams, M.J. 1990, Beginning to Read: Thinking and Learning about Print: Summary, Center for the Study of Reading, Urbana, Illinois.
Ainley, J. 1998, 'School participation, retention and outcomes', in Dusseldorp Skills Forum, Australia's Youth: Reality and Risk, Dusseldorp Skills Forum, Sydney.
Alloway, N. 1995, Foundation Stones: The Construction of Gender in Early Childhood, Curriculum Corporation, Carlton Vic.
Alloway, N. 1999, 'Reconceptualising early literacy achievement: moving beyond critique paralysis', Australian Journal of Early Childhood, vol. 24, no. 4, pp. 1-6.
Alloway, N. \& Gilbert, P. 1997a, 'Boys and literacy: lessons from Australia', Gender and Education, vol. 9, no. 1, pp. 49-58.
Alloway, N. \& Gilbert, P. 1997b, 'Everything is dangerous: working with the "Boys and Literacy" agenda', English in Australia, October, pp. 35-45, pp. 119-20.
Alloway, N. \& Gilbert, P. 1997c, 'Video game culture: playing with masculinity, violence and pleasure', in S. Howard (ed.), Wired Up: Young People and the Electronic Media, Taylor \& Francis, London.
Alloway, N. \& Gilbert, P. 1998, 'Reading literacy test data: benchmarking success?', Australian Journal of Language and Literacy, vol. 21, no. 3, pp. 249-61.
Alloway, N. \& Gilbert, P. 2002, 'Gender and literacy in early childhood contexts: boys on the side?', in L. Makin \& C. Jones Diaz (eds), Literacies in Early Childhood, MacLellan \& Petty, Sydney.
Alloway, N. \& Gilbert, P. in press, 'Shifting discourses about gender in higher education enrolments: retrieving marginalised voices’, International Journal of Qualitative Studies in Education.
Alloway, N., Gilbert, P., Gilbert, R. \& Henderson, R. in press, 'Boys performing English', Gender and Education.
Alloway, N. \& Gilbert, P. (eds) 1997a, Boys and Literacy: Professional Development Units, Curriculum Corporation, Carlton Vic.
Alloway, N. \& Gilbert, P. (eds) 1997b, Boys and Literacy: Teaching Units, Curriculum Corporation, Carlton Vic.
Analysis and Equity Branch, Department of Education, Training and Youth Affairs 2000, 'The education of boys: submission to the House of Representatives Standing Committee on Employment, Education and Workplace Relations'.
Angus, L. 1993, 'Women in a male domain: gender and organisational culture in a Christian Brothers college', in L. Angus (ed.), Education, Inequality and Social Identity, The Falmer Press, Washington DC.
Askew, S. \& Ross, C. 1988, Boys Don't Cry: Boys and Sexism in Education, Open University Press, Milton Keynes.
Australian Bureau of Statistics 1999, Household Use of Information Technology, Australia, Bulletin no. 8146.0, Canberra.
Australian Bureau of Statistics 2000, Australian Social Trends, cat. no. 4102.0, Canberra.

Australian Bureau of Statistics 2001, Income Distribution, Australia, bulletin no. 6523.0, Canberra. <http//www.abs.gov.au/ausstats/abs@nsf/0>.
Australian Council for Educational Research 1997a, Literacy Standards in Australia, Department of Employment, Education, Training and Youth Affairs, Canberra.
Australian Council for Educational Research 1997b, Reading and Numeracy in Junior Secondary Schools: Trends, Patterns and Consequences, ACER, Melbourne.
Australian Education Council 1993, National Action Plan for the Education of Girls 1993-97, Curriculum Corporation, Carlton Vic.
Baker, C.D. 1991, 'Reading the text of reading lessons', Australian Journal of Reading, vol. 14, pp. 5-20.
Baker, C.D. \& Freebody, P. 1989, Children's First School Books: Introductions to the Culture of Literacy, Basil Blackwell, Oxford UK.
Baker, D. \& Street, B. 1991, 'Literacy and numeracy: concepts and definitions', Encyclopedia of Education, Pergamon Press, Oxford UK.
Barton, D. \& Hamilton, M. 2000, Local Literacies, Routledge, London.
Beavis, C. 1999, 'Literacy, English and Computer Games', paper presented to the International Federation for the Teaching of English Conference, Coventry UK. [http://www.btr.qld.edu.au/papers/IFTE.htm](http://www.btr.qld.edu.au/papers/IFTE.htm).
Beynon, J. 1989, 'A school for men: an ethnographic case study of routine violence in schooling', in S. Walker \& L. Barton (eds), Politics and the Processes of Schooling, Open University Press, Milton Keynes UK.
Biddulph, S. 1997, Raising Boys, Finch Publishing, Sydney.
Brandt, D. 1999, Literacy, Opportunity and Economic Change, CLEA Reports No. 12001, [http://cela.albany.edu/Brandt_litop/index.html](http://cela.albany.edu/Brandt_litop/index.html).
Brine, J. 2001, 'Education, social exclusion and the supranational state', International Journal of Inclusive Education, vol. 5, pp. 119-31.
Britton, J., Burgess, T., Martin, N., McLeod, A. \& Rosen, H. 1975, The Development of Writing Abilities 11-18, Schools Council, London.
Browne, R. \& Fletcher, R. (eds) 1995, Boys in Schools: Addressing the Real Issues - Behaviour, Values And Relationships, Finch Publishing, Sydney.
Bruner, J. 1966, Toward a Theory of Instruction, Harvard University Press, Cambridge, Massachusetts.
Bruner, J. 1996, The Culture of Education, Harvard University Press, Cambridge, Massachusetts.
Buckingham, D. \& Sefton-Green, J. 1994, Cultural Studies Goes to School: Reading and Teaching Popular Media, Taylor \& Francis, London.
Buckingham, J. 2000, Boy Troubles: Understanding Rising Suicide, Rising Crime and Educational Failure, Centre for Independent Studies, St Leonards NSW.

Butler, J. 1990, Gender Trouble: Feminism and the Subversion of Identity, Routledge, New York.
Bynner, J. \& Parsons, S. 2001, 'Qualifications, basic skills and accelerating social exclusion', Journal of Education and Work, vol. 14, pp. 279-91.
Byrne, B. 1999, ‘Teaching reading: contributions from psychology and its neighbours', in P. R. Martin \& W. Noble (eds), Psychology and Society, Australian Academic Press, Brisbane.
Cazden, C., Cope, B., Fairclough, N., Gee, J.P., Kalantzis, M., Kress, G., Luke, A., Luke, C., Michaels, S. \& Nakata, M. (The New London Group) 1996, 'A pedagogy of multiliteracies: designing social futures', Harvard Educational Review, vol. 66, no. 1, pp. 60-92.
Chall, J.S. 1967, Learning To Read: The Great Debate, McGraw-Hill, New York.
Christian-Smith, L. (ed.) 1993, Texts of Desire, The Falmer Press, London.
Christie, F. 1993, 'The "received tradition" of English teaching: the decline of rhetoric and the corruption of grammar', in B. Green (ed.), The Insistence of the Letter, The Falmer Press, London.
Christie, F., Devlin, B., Freebody, P., Luke, A., Martin, J.R., Threadgold, T. \& Walton, C. 1991, Teaching English Literacy: A Project of National Significance on the Preservice Preparation of Teachers for Teaching English Literacy, vol. 2, Northern Territory University, Darwin, for Department of Education, Training and Youth Affairs.
Collins, C., Batten, M., Ainley, J. \& Getty, C. 1996, Gender and School Education, Australian Government Publishing Service, Canberra.
Collins, C., Kenway, J. \& McLeod, J. 2000, Factors Influencing the Educational Performance of Males and Females in School and Their Initial Destinations after Leaving School, Deakin University, Geelong Vic. \& University of South Australia, Adelaide.
Comber, B., Badger, L., Barnett, J., Nixon, H. \& Prince, S. 2001, SocioEconomically Disadvantaged Students and the Development of Literacies in School, 3 vols, South Australian Department of Education, Training and Employment, Adelaide.
Connell, R. 1996, 'Teaching the boys: new research on masculinity, and gender strategies for schools', Teachers College Record, vol. 98, no. 2, pp. 206-35.
Connell, R., Ashenden, D., Kessler, S. \& Dowsett, G. 1982, Making the Difference: Schools, Families and Social Division, Allen \& Unwin, Sydney.
Cratty, B.J. 1986, Perceptual Motor Development in Infants and Children, Prentice Hall, New Jersey.
Cunningham, H. 1995, 'Mortal Kombat and computer game girls', in C. Bazalgette \& D. Buckingham (eds), Not in front of the Children, British Film Institute, London.
Currie, Y.H. 1990, 'Do boys really need more help? An examination of why so many more boys than girls get special help in Berkshire's mainstream schools', International Journal of Adolescence and Youth, vol. 2, pp. 143-50.

Daly, P. 1996, 'The effects of single-sex and coeducational schooling on girls' achievement', Research Papers in Education, vol. 11, no. 3, pp. 289-306.
Davies, B. 1989a, 'Education for sexism: a theoretical analysis of the sex/gender bias in education', Educational Philosophy and Theory, vol. 21, no. 1, pp. 1-19.
Davies, B. 1989b, Frogs and Snails and Feminist Tales: Preschool Children and Gender, Allen \& Unwin, Sydney.
Davies, B. 1993, Shards of Glass: Children Reading and Writing beyond Gendered Identities, Allen \& Unwin, Sydney.
Davies, B. 1997, 'Constructing and deconstructing masculinities through critical literacy', Gender and Education, vol. 9, no. 1, pp. 9-30.
Davies, L. 1992, 'School power cultures under economic constraint', Educational Review, vol. 43, no. 2, pp. 127-36.
Davy, V. 1995, 'Reaching for consensus on gender equity: the New South Wales experience', Proceedings of the Promoting Gender Equity Conference, ACT Department of Education and Training, Canberra, pp. 57-79.
Department for Education and Skills 2001, The Standards Site, <http://www.standards.dfes.gov.uk/genderandachievement/data_1.2h tml>.
Desrosieres, A. 1998, The Politics of Large Numbers: A History of Statistical Reasoning, trans. C. Nash, Harvard University Press, Cambridge, Massachusetts.
Dixon, J. 1967, Growth through English, Oxford University Press, London.
Eagleton, T. 1996, The Illusions of Postmodernism, Basil Blackwell, Oxford.
Elium, D. \& Elium, J. 1992, Raising a Son: Parenting and the Making of a Healthy Man, Hawthorn Press, Stroud, UK.
Elley, W.B. (ed.) 1994, The IEA Study of Reading Literacy: Achievement and Instruction in Thirty-Two School Systems, Pergamon Press (International Association for the Evaluation of Educational Achievement), Oxford.
Fairclough, N. 1995, Critical Discourse Analysis, Longman, London. Flynn, J. 1994, 'Prevalence of reading failure in boys compared with girls’, Psychology in the Schools, vol. 31, January, pp. 66-71.
Frater, G. 1997, 'Improving boys' literacy: a survey of effective practice in secondary schools', The Basic Skills Agency, London.
Freebody, P. in press, ‘Critical literacy', in R. Beach, J. Green \& P. Shanahan (eds), Multidisciplinary Perspectives on Literacy Research, Hampton Press, New Jersey.
Freebody, P. in press, Qualitative Research Methods in Education: Critical and Interactional Perspectives, Sage Press, London.
Freebody, P. \& Baker, C. in press, 'Categories and sense-making in literacy research and education: critical literacy and the spaces between people’, in G. Bull \& M. Anstey (eds), The Literacy Lexicon, Pearson, Sydney.

Freebody, P., Cumming, J., Falk, I. \& Muspratt, S. 1993, 'A trialing and evaluation of the adult literacy and numeracy competency scales', report to the Commonwealth Department of Employment, Education, and Training, 2 vols.
Freebody P. \& Freiberg, J. 2000, 'Public and pedagogic morality: the local orders of instructional and regulatory talk in classrooms', in S. Hester \& D. Francis (eds), Local Education Order: Ethnomethodological Studies of Knowledge in Action, John Benjamins, Amsterdam.
Freebody, P. \& Gilbert, P. 1999, 'Research into language and literacy', in J.P. Keeves \& K. Marjoribanks (eds), Australian Education: Review of Research, 1965-1998, Academy of the Social Sciences in Australia \& ACER Press, Melbourne.
Freebody, P. \& Luke, A. 1990, 'Literacies programs: debates and demands in cultural context', Prospect, no. 5, pp. 7-15.
Freebody, P. \& Luke, A. in press, 'Literacy as understanding and changing the conditions of living: narratives and heuristics from the story of the "four roles" model', in G. Bull \& M. Anstey (eds), The Literacy Lexicon, Pearson, Sydney.
Freebody, P., Luke, A. \& Gilbert, P. 1991, 'Reading instruction and discourse critique: rethinking the politics of literacy', Curriculum Inquiry, vol. 21, pp. 235-57.
Freebody, P. \& Muspratt, S. 2002, Report on the Literacy Intervention: St Laurence's College, Griffith University, Brisbane.
Freiberg, J. \& Freebody, P. 1995, 'Analysing literacy events in classrooms and homes: conversation-analytic approaches', in Freebody. P., Ludwig, C. \& Gunn, S., Everyday Literacy Practices in and out of Schools in Low Socio-Economic Urban Communities, report to the Commonwealth Department of Employment, Education and Training, Curriculum Corporation, Carlton, Victoria.
Freire, P. \& Macedo, D. 1987, Literacy: Reading the Word and the World, Routledge \& Kegan Paul, London.
Fuller, B., Edwards, J.H. \& Gorman, K. 1987, ‘Does rising literacy spark economic growth? Commercial expansion in Mexico', in D. Wagner (ed.), The Future of Literacy in a Changing World, Pergamon, New York.
Gee, J. 1991, Social Linguistics and Literacies: Ideology in Discourses, The Falmer Press, London.
Gee, J.P. 1999, An Introduction to Discourse Analysis: Theory and Method, Routledge, London.
Gilbert, P. 1989a, 'Personally and passively, yours: girls, literacy and education', Oxford Review of Education, vol. 15, no. 3, pp. 257-65.
Gilbert, P. 1989b, Writing, Schooling and Deconstruction: From Voice to Text in the Classroom, Routledge, London.
Gilbert, P. 1989c (with Rowe, K.), Gender, Literacy and the Classroom, Rigby Education \& the Australian Reading Association, Melbourne.
Gilbert, P. 1993, Gender Stories and the Language Classroom, Deakin University Press, Geelong Vic.

Gilbert, P. 1998, ‘The Radford Lecture. Gender and schooling in new times: the challenge of boys and literacy', The Australian Educational Researcher, vol. 25, no. 1, pp. 15-36.
Gilbert, P. \& Taylor, S. 1991, Fashioning the Feminine: Girls, Popular Culture and Schooling, Allen \& Unwin, Sydney.
Gilbert, R. \& Gilbert, P. 1998, Masculinity Goes to School, Allen \& Unwin, Sydney.
Goodman, K.S. 1967, 'Reading: a psycholinguistic guessing game’, paper presented to the American Educational Research Association, New York, and reprinted in H. Singer \& R.B. Ruddell (eds), Theoretical Models and Processes of Reading, 2nd edn, International Reading Association, Newark, Delaware.
Goodman, K. 1976, 'Reading: a psycholinguistic guessing game', in H. Singer \& R.B. Ruddell (eds), Theoretical Models and Processes of Reading, 2nd edn, International Reading Association, Newark, Delaware.
Goodman, K. 1988, 'Invention and convention in the reading process', paper presented to the Post-World Reading Congress Research Symposium, University of Queensland, Brisbane.
Gough, P.B. 1972, 'One second of reading', in J.F. Kavanaugh \& I.G. Mattingly (eds), Language by Ear and by Eye, MIT Press, Cambridge, Massachusetts.
Graff, H.J. 1987, The Labyrinths of Literacy, The Falmer Press, London.
Graff, H.J. 2001, 'Literacy's myths and legacies: from lessons from the history of literacy, to the question of critical literacy', in P. Freebody, S. Muspratt \& B. Dwyer (eds), Difference, Silence, and Textual Practice: Studies in Critical Literacy, Hampton Press, New Jersey.
Greenstein, B. 1993, The Fragile Male, Boxtree, London.
Hall, C. \& Coles, M. 1999, Children's Reading Choices, Routledge, London.
Heap, J.L. 1992, 'Normative order in collaborative computer editing', in G. Watson \& R.M. Seiler (eds), Text in Context: Contributions to Ethnomethodology, Sage, London.
Heap, J. L. 1995, 'Understanding cultural science: a response to Anderson and West', Reading Research Quarterly, vol. 303, pp. 578-80.
Hill, P.W. \& Rowe, K.J. 1998, 'Modeling student progress in studies of educational effectiveness', School Effectiveness and School Improvement, vol. 9, no. 3, pp. 310-33.
Hoptman, M. \& Davidson, R. 1994, 'How and why do the two cerebral hemispheres interact?' Psychological Bulletin, vol. 116, no. 2, pp. 195-219.
Huey, E.B. 1908, The Psychology and Pedagogy of Reading, Macmillan, New York.
Hunter, I. 1988, Culture and Government: The Emergence of Literary Education, Macmillan, London.
Indigenous Education Strategic Initiatives Programme 2000, What Works, Commonwealth of Australia, Canberra.

Juel, C. 1988, 'Learning to read and write: a longitudinal study of 54 children from first through fourth grades', Journal of Educational Psychology, vol. 80, pp. 437-47.
Kemp, D. (Minister for Employment, Education Training and Youth Affairs) 2000, Percentage of Year 3 Students Achieving the Reading Benchmark, media release,
<http://www.deetya.gov.au/ministers/kemp/mar00/k051_310300_attach,h tm>.
Kenway, J. \& Fitzclarence, L. 1997, 'Masculinity, violence and schooling: challenging "poisonous pedagogies"', Gender and Education, vol. 9, no. 1, pp. 117-33.
Kenway, J., Willis, S., Blackmore, J. \& Rennie, L. 1997, Answering Back: Girls, Boys and Feminism, Allen \& Unwin, Sydney.
LaBerge, D. \& Samuels, S.J. 1976, 'Toward a theory of automatic information processing in reading', Cognitive Psychology, vol. 6, pp. 293-323.
Lamb, S. 1996, Completing School in the 1990s: Trends in the 1990s, LSAY Report No. 1, Australian Council for Educational Research, Melbourne.
Lamb, S. \& Ball, K. 1999, Curriculum and Careers: The Education and Labour Market Consequences of Year 12 Subject Choice, LSAY Report No. 12, Australian Council for Educational Research, Melbourne.
Lareau, A. 1992, 'Gender differences in parent involvement in schooling', in J. Wrigley (ed.), Education and Gender Equality, The Falmer Press, London.
Lemaire, J. 1994, for New South Wales Teachers' Federation: 'Submission to Government Advisory Committee on Education, Training and Youth Affairs on gender equity and boys' education strategies'.
Limage, L. 1993, 'Literacy strategies: a view from the International Literacy Year Secretariat of UNESCO', in P. Freebody \& A.R. Welch (eds), Knowledge, Culture and Power: International Perspectives on Literacy as Policy and Practice, The Falmer Press, London.
Lingard, B. \& Douglas, P. 1999, Men Engaging Feminisms: ProFeminism, Backlashes and Schooling, Open University Press, Buckingham, Philadelphia.
Luke, A. 1992, 'The body literate: discourse and inscription in early literacy training', Linguistics and Education, vol. 4, pp. 107-29.
Luke, A. \& Freebody, P. 1998, ‘The social practices of reading', in S. Muspratt, A. Luke \& P. Freebody (eds), Constructing Critical Literacies, Hampton Press, Creskill.
Luke, A., Freebody, P. \& Land, R. 2000, Literate Futures: Review of Literacy Education, Education Queensland, Brisbane.
Luke, A., O'Brien, J. \& Comber, B. 1994, 'Making community texts objects of study', The Australian Journal of Language and Literacy, vol. 17, no. 2, pp. 139-49.

Luke, C. \& Bishop, G. 1994, 'Selling and reading gender and culture’, The Australian Journal of Language and Literacy, vol. 17, no. 2, pp. 109-19.
Mac An Ghaill, M. 1994, The Making of Men: Masculinities, Sexualities and Schooling, Open University Press, Buckingham, Philadelphia.
Maccoby, E. 1990, 'Gender and relationships: a developmental account', American Psychologist, April, pp. 513-20.
MacDonald, A., Saunders, L. \& Benfield, P. 1999, Boys' Achievement Progress, Motivation and Participation: Issues Raised by the Recent Literature, National Foundation for Educational Research, Slough UK.
Marks, G. \& Ainley, J. 1997, Reading Comprehension and Numeracy among Junior Secondary School Students in Australia, Australian Council for Educational Research, Melbourne.
Marks, G., McMillan, J. \& Hillman, K. 2001, Tertiary Entrance Performance: The Role of Student Background and School Factors, Australian Council for Educational Research, Melbourne.
Martin, J.R. 1992, English Text: System and Structure, John Benjamins, Amsterdam.
Martinez, L. 1994, 'Boyswork: whose work?' Redress. Association of Women Educators' Journal, vol. 3, no. 2, pp. 3-12.
Martino, W. 1995a, ‘Critical literacy for boys’, Interpretations, vol. 28, no. 2, pp. 18-32.
Martino, W. 1995b, 'Gendered learning practices: exploring the costs of hegemonic masculinity for girls and boys in schools', Proceedings of the Promoting Gender Equity Conference, ACT Department of Education and Training, Canberra, pp. 343-64.
Martino, W. 2001, 'Boys and literacy: investigating boys' reading preferences and involvement in literacy', Australian Journal of Language and Literacy, vol. 24, no. 1, pp. 61-74.
Martino, W. \& Mellor, B. 1995, Gendered Fictions, Chalkface Press, Perth.
Masters, G.N. \& Forster, M. 1997, Mapping Literacy Achievement: Results of the 1996 National School English Literacy Survey, Department of Employment, Education, Training and Youth Affairs, Canberra.
Matters, G., Pitman, J. \& Gray, K. 1997, ‘Are Australian boys underachieving? An analysis using a validity-reliability framework based on the work of Lee Cronback and Pamela Moss', paper presented at the 23rd Annual Conference of the International Association for Educational Assessment, Durban, South Africa, June.
McKenna, M., Kear, D. \& Ellsworth, R. 1995, ‘Children's attitudes towards reading: a national survey', Reading Research Quarterly, vol. 30, no. 4, pp. 934-56.
Mellor, B., Patterson, A. \& O'Neil, M. 1989, Reading Stories, Chalkface Press, Perth.
Merchant, G. 2001, 'Teenagers in cyberspace: an investigation of language use and language change in Internet chatrooms', Journal of Research in Reading, vol. 24, pp. 293-306.

Meredyth, D., Russell, N., Blackwood, L., Thomas, J. \& Wise, P. 2000, Real Time: Computers, Change and Schooling, Australian Key Centre for Cultural and Media Policy \& Department of Education, Training and Youth Affairs, Canberra.
Mikulecky, L. \& Kirkley, J. 1998, 'Changing workplaces, changing classes: the new role of technology in workplace literacy', in D. Reinking, M. McKenna, L. Labbo \& R. Kieffer (eds), The Handbook of Literacy and Technology: Transformations in a Post-Typographic World, Lawrence Erlbaum Associates, Mahwah, New Jersey.
Millard, E. 1997, Differently Literate: Boys, Girls and the Schooling of Literacy, The Falmer Press, London.
Mills, M. \& Lingard, B. 2000, Submission to the Standing Committee on Employment, Education and Workplace Relations: Inquiry into the Education of Boys, Graduate School of Education, University of Queensland, Brisbane.
Ministerial Council for Education, Employment, Training and Youth Affairs 1997, Gender Equity: A Framework for Australian Schools, ACT Department of Education and Training, Canberra.
Ministerial Council for Education, Employment, Training and Youth Affairs 1999, National Report on Schooling in Australia 1999, Curriculum Corporation, Melbourne.
Moir, A. \& Jessel, D. 1991, Brainsex: The Real Difference between Men and Women, Mandarin, London.
Moss, G. 1998a, 'The fact and fiction research project', interim findings for the Economic and Social Research Council, University of Southampton UK.
Moss, G. 1998b, 'The fact and fiction research project', final report to the Economic and Social Research Council, University of Southampton, UK.
'New Basics Technical Paper 2000', <http://education.qld.gov.au/corporate/newbasics/html/library.html\#t echpaper>
Newmarch, E., Taylor-Steele, S. \& Cumpston, A. 2000, Women in IT What are the Barriers? Network of Women in Further Education Conference, Department of Education, Training and Youth Affairs, Canberra.
Nichols, S. 1994, 'Fathers and literacy', The Australian Journal of Language and Literacy, vol. 17, no. 4, pp. 301-12.
Nichols, S. 1995, 'Learning difficulties and gender: examining some key assumptions', Proceedings of the Promoting Gender Equity Conference, ACT Department of Education and Training, Canberra, pp. 365-80.
O'Doherty, S. 1994, Challenges and Opportunities: A Discussion Paper. A Report to the Minister for Education, Training and Youth Affairs on the Inquiry into Boys' Education, Ministry of Education and Youth Affairs, Sydney.
Olson, D.R. 1999, 'The written word', inaugural lecture, University of Toronto,
<http://lsn.oise.utoronto.ca/Bruce/Rliteracy/Spring99.nsf/pages/olson $>$.
Oman, C. 1999, 'Globalization, regionalization and inequality', in A. Hurrell \& N. Woods (eds), Inequality, Globalization and World Politics, Oxford University Press, Oxford, UK.
Oxenham, J. 1980, Literacy: Writing, Reading and Social Organisation, Routledge \& Kegan Paul, London.
Patterson, A. 1995, 'Supervising freedom: the English profile; English curriculum; and English pedagogy', Australian Journal of Language and Literacy, vol. 18, no. 2.
Phillips, A. 1993, The Trouble with Boys: Parenting the Men of the Future, Pandora, London.
Poynton, C. 1985, Language and Gender: Making the Difference, Deakin University Press, Geelong Vic.
Queensland Board of Senior Secondary School Studies 2000, Subject Enrolment and Levels of Achievement in Board Subjects by Subject Class and Sex, [http://www.bssssq.edu.au/ResourcesandStatistics/Statistics.html](http://www.bssssq.edu.au/ResourcesandStatistics/Statistics.html).
Queensland School Curriculum Council 1998, 'Statewide performance of students in aspects of literacy and numeracy in Queensland 1995, 1996 and 1997', report to the Minister for Education.
Ridley, M. 1994, The Red Queen, Penguin, London.
Rose, S. 1992, The Making of Memory: From Molecules to Mind, Bantam Books, Toronto.
Rowe, K.J. 1998, 'What's so good about reading recovery?' keynote address presented to the International Reading Recovery Institute Conference, Cairns, Queensland, July 5-8.
Rowe, K.J. 1999, 'Reading recovery: research evidence for its positive impact on children's growth towards literacy and behavioral autonomy', keynote address presented to the National Reading Recovery Tutor Development Conference, Auckland, New Zealand, July 12-16.
Rowe, K.J. 2000, 'The impact of reading recovery in the context of teacher and school effectiveness', workshop seminar presented at the Annual Reading Recovery Conference, Melbourne, July 28-29.
Rowe, K.J. 2001, 'Equal and different? Yes, but what really matters', background paper to keynote address presented to the joint conference of the Alliance of Girls' Schools Australasia and the International Boys' Schools Coalition, Gold Coast, Queensland, August 3-5.
Scribner, S. \& Cole, M. 1981, The Psychology of Literacy, Harvard University Press, Cambridge, Massachusetts.
Senior Secondary Assessment Board of South Australia 1993, Gender Equity in Senior Secondary Schools Assessment, Commonwealth Department of Employment, Education \& Training, Canberra.
Silverstein, O. \& Rashbaum, B. 1994, The Courage to Raise Good Men, Viking, New York.

Simpson, A. 1996, 'Fiction and facts: an investigation of the reading practices of girls and boys', English Education, vol. 28, no. 4, pp. 268-79.
Smith, B. 1995, Mothers and Sons: The Truth about Mother-Son Relationships, Allen \& Unwin, St Leonards, NSW.
Snow, C., Burns, M. \& Griffin, P. (eds) 1998, Preventing Reading Difficulties in Young Children, National Academy Press, Washington DC.

Snyder, I. 2001, 'A new communication order: researching literacy practices in the network society', Language and Education: An International Journal, vol. 15, pp. 117-31.
Stanovich, K.E. 1986, 'Matthew effects in reading: some consequences of individual differences in the development of reading fluency', Reading Research Quarterly, vol. 21, pp. 360-406.
Stanovich, K.E. 1989, 'Various views on variation', Journal of Learning Disabilities, vol. 22, pp. 366-69.
Stewart, F. \& Berry, A. 1999, 'Globalization, liberalization, and inequality: expectations and experience', in A. Hurrell \& N. Woods (eds), Inequality, Globalization and World Politics, Oxford University Press, Oxford UK.
Street, B.V. 1995, Social Literacies: Critical Approaches to Literacy in Development, Ethnography and Education, Longman, London.
Swann, J. 1992, Girls, Boys and Language, Blackwell, Oxford.
Teese, R., Davies, M., Charlton, M. \& Polesel, J. 1995, Who Wins at School? Boys and Girls in Australian Secondary Education, Department of Education Policy and Management, University of Melbourne.
Thomas, S., Sammons, P., Mortimore, P. \& Smees, R. 1997, ‘Differential secondary school effectiveness’, British Educational Research Journal, vol. 23, pp. 451-70.
Thorne, B. 1993, Gender Play: Girls and Boys at School, Open University Press, Buckingham.
Tierney, R. 1996, 'Redefining computer appropriation: a five-year study of "Classrooms of Tomorrow" students', in C. Fisher, D.C. Dwyer \& K. Yocam (eds), Education and Technology: Reflections of Computing In Classrooms, Jossey-Bass, San Francisco.
Trent, F. \& Slade, M. 2001, Declining Rates of Achievement and Retention: The Perceptions of Adolescent Males, Department of Education, Training and Youth Affairs, Canberra.
Unsworth, L. 2001, Teaching Multiliteracies across the Curriculum: Changing Contexts of Text and Image in Classroom Practice, Open University Press, Buckingham, Philadelphia.
Walker, J. 1988, Louts and Legends: Male Youth Culture in an Inner-City School, Allen \& Unwin, Sydney.
Walkerdine, V. 1989, 'Femininity as performance', Oxford Review of Education, vol. 15, no. 3, pp. 267-79.
Wickert, R. \& Freebody, P. 1994, Accounting for Context and Competence in Australian Adult Education, paper prepared for the

Organization for Economic Development, Washington DC, University of Technology, Sydney.
Willis, P. 1977, Learning to Labour: How Working Class Kids Get Working Class Jobs, Saxon House, Aldershot.
Woodward, L.J., Fergusson, D.M. \& Horwood, L.J. 1999, 'Effects of single-sex coeducational secondary schooling on children's academic achievement', Australian Journal of Education, vol. 43, pp. 142-56.
Woolcott Research Pty Ltd 2001, 'Young Australians reading: from keen to reluctant readers', prepared for the Australian Centre for Youth Literature and the Audience and Market Development Division of the Australia Council.
Yates, L. 2000, Submission to the Standing Committee on Employment, Education and Workplace Relations Inquiry into the Education of Boys, Faculty of Education, University of Technology, Sydney.
Yunupingu, M. 1994, National Review of Education for Aboriginal and Torres Strait Islander People: A Discussion Paper, Australian Government Printing Service, Canberra.

## ApPENDIX 1

SECTION ONE
Your background

1. In which system of education do you work? Please select one. Government/State
Catholic
Independent
2. Please indicate if your school is:
single sex
coeducational
3. What level(s) of schooling do you work in? Please select one. Early (e.g. Pre, K, Prep)
Lower primary (1-2)
Middle primary (3-4)
Upper primary (5-6/7)
All levels ( $\mathrm{K}-6 / 7$ )
4. What is the approximate total enrolment of your school (K-6 only)? Please select one.
1-25
25-100
101-200
201-400
401-600
601+
5. Does your classroom include proportions of students who are: Please select as many as appropriate and also indicate the percentage.

LBOTE (Language Backgrounds other than English)
Indigenous
Low socio-economic
Recent migrant
Refugee
Transient
Students with disabilities that affect their literacy learning
-5\%
5-10\%
10-20\%
21-40\%
41-60\%
Over 60\%
6. Does your school community include proportions of people who are: Please select as many as appropriate.

LBOTE (Language Backgrounds other than English)
Indigenous
Low socio-economic
Recent migrant
Refugee
Transient
Students with disabilities that affect their literacy learning
0-5\%
5-10\%
10-20\%
21-40\%
41-60\%
Over 60\%
7. Please provide your school postcode.
8. Are you:
female
male
9. For how many years have you been a primary school teacher? Please select one.
0-5
5-10
11-20
More than 20
10. For how many years have you been at this school? Please select one.
1-5 years
5-10
11-15
More than 15
11. Please indicate your professional qualifications, including the number of years of training.
Two year study of Education
Three year study of Education
Four year study of Education
Specific literacy qualifications
Masters in Education
Ph.D. in Education
12. Please list and provide the title/topic and an indication of the duration of significant professional development courses or programs relevant to literacy education that you have undertaken in the past ten years.

SECTION TWO
Below is a list of propositions for why some boys underachieve in literacy at school. We find these and others commonly expressed in the popular media, in education forums and in educational research.

From your experience as a teacher, please indicate your level of agreement with each of these propositions by clicking on the appropriate box. Please click only one box for each statement.

1. Some groups of boys have lower literacy levels than others.

Strongly disagree
2
3
4
5
6 Strongly agree
2. If there were more male teachers in primary schools, boys' literacy learning would improve.

1
2
3
4
5
6
3. If more adult men were involved with boys in reading and writing activities, boys' literacy learning would improve.

1
2
3
4
5
6
4. Teachers need to understand more about male culture to improve boys' literacy learning.

1
2
3
4
5
6
5. Boys' behaviour at school significantly affects their levels of literacy achievement.

1
2
3
4
5
6
6. There has been a lack of focus on boys' education over the last two decades.

1
2
3
4
5
6
7. The way that boys' brains develop accounts for boys' literacy learning.

1
2
3
4
5
6
8. There are not enough books of high-interest value to boys available in schools.

1
2
3
4
5
6
9. Boys are not ready for school at the compulsory entry age.

1
2
3
4
5
6
10. Boys prefer to read non-fiction to fiction.

1
2
3
4
5
6
11. If schools adopted different assessment practices, boys' literacy results would improve.

1
2
3
4
5
6
12. Boys often think that reading and writing activities are more appropriate for girls and women.

1
2
3
4
5
6
13. If boys attended single-sex schools, their literacy learning would improve.

1
2
3
4
5
6
14. Boys prefer technological forms of literacy to print-based forms of literacy.

1
2
3
4
5
6
15. If literacy classes were segregated by gender, boys' literacy learning would improve.

1
2
3
4
5
6
16. Many current teaching practices in literacy classrooms are not conducive to boys' literacy learning.

1
2
3
4
5
6

SECTION THREE
From your experiences as a teacher, please respond to these questions:

1. Could you comment on whether particular boys and girls appear to struggle with the literacy requirements of schools?
Do they appear to come from particular backgrounds or have particular characteristics? Please specify.
2. Do some boys and girls have particular literacy difficulties that make it hard for them to meet school literacy requirements?
Please elaborate on the types of difficulties these students experience.
3. Of the literacy programs that you have implemented, what aspects have made a difference in literacy outcomes for students in general?
Please specify the program or methodology that you have found effective.

3a. Specifically for boys?
3b. Specifically for girls?
4. What particular teaching-learning strategies have you found to be successful in improving literacy outcomes for both boys and girls?

4a. Have you found particular teaching-learning strategies that appear to work better for boys? Please specify.

4b. Have you found particular teaching-learning strategies that work better for girls? Please specify.
5. What particular classroom management strategies have you found to be successful in improving literacy outcomes for boys and girls? Please specify.

5a. Have you found particular classroom management strategies that work better for boys? Please specify.

5b. Have you found particular classroom management strategies that work better for girls? Please specify.

## Appendix 2

Dear Parent / Caregiver,
Our project is funded by the Commonwealth government to investigate ways of improving literacy outcomes for boys. Our team includes researchers from James Cook University and Griffith University and a project manager from Curriculum Corporation.

Knowing how important parents views are we would really welcome input about this issue. If you have time to jot down comments about the following questions, we would be very grateful. All comments will be treated as confidential and you do not need to record your name on the question sheet.

Could you please return you comments to the class teacher by Wednesday 6 June 2001

Yours sincerely

The Project Team
Margery Hornibrook (Curriculum Corporation)
Nola Alloway and Pam Gilbert (James Cook University)
Peter Freebody and Sandy Muspratt (Griffith University)

Is your child:
Male $\square$ Female $\square$

In Grade $3 \square$ Grade $7 \square$

Do you think that boys have more difficulty with reading and writing than girls? If so, why?

What are some things that you do to help your child's reading and writing?

What do you think teachers could do that would help boys with their reading and writing?

Thank you. If you have any other comments to make about boys and literacy, please make them below.

## Appendix 3

Figure A3.1: Frequency distribution for gender

| Gender | Number | $\%$ |
| :--- | :--- | :--- |
| Male | 116 | 28.7 |
| Female | 288 | 71.3 |
| Missing | 9 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.2: Frequency distribution for time in current school

| Time in current school | Number | $\%$ |
| :--- | :--- | :--- |
| $1-5$ years | 230 | 57.4 |
| $6-10$ years | 99 | 24.7 |
| $11-15$ years | 45 | 11.2 |
| $>15$ years | 27 | 6.7 |
| Missing | 12 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.3: Frequency distribution for teaching experience

| Years of teaching experience | Number | $\%$ |
| :--- | :--- | :--- |
| $0-5$ years | 42 | 10.6 |
| 6-10 years | 53 | 13.4 |
| 11-20 years | 113 | 28.5 |
| $>20$ years | 189 | 47.6 |
| Missing | 16 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.4: Frequency distribution for level in school

| Level in school | Number | $\%$ |
| :--- | :--- | :--- |
| Early (pre, K, prep) | 29 | 7.0 |
| Lower primary (1-2) | 61 | 14.8 |
| Middle primary. (3-4) | 66 | 16.0 |
| Upper primary (5-6/7) | 119 | 28.8 |
| All levels | 157 | $\mathbf{3 8 . 0}$ |

Note: Respondents could tick more than one category, and hence percentages add to more than 100.

Figure A3.5: Frequency distribution for professional qualifications

| Professional qualifications | Number | $\%$ |
| :--- | :--- | :--- |
| Two-year | 10 | 2.5 |
| Three-year | 61 | 15.1 |
| Four-year | 252 | 62.2 |
| Specific literacy qualifications | 15 | 3.7 |
| Masters degree in education | 67 | 16.5 |
| Missing | 8 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.6: Frequency distribution for State in which school is located

| Location of school: State | Number | $\%$ |
| :--- | :--- | :--- |
| Queensland | 166 | 41.5 |
| New South Wales | 159 | 39.8 |
| Tasmania | 46 | 11.5 |
| Victoria | 11 | 2.8 |
| South Australia | 14 | 3.5 |
| Western Australia | 4 | 1.0 |
| Missing | 13 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.7: Frequency distribution for system of education

| System of education | Number | $\%$ |
| :--- | :--- | :--- |
| State | 287 | 70.2 |
| Catholic | 71 | 17.4 |
| Independent | 51 | 12.5 |
| Missing | 4 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.8: Frequency distribution for type of school

| Type of school | Number | $\%$ |
| :--- | :--- | :--- |
| Single-sex | 11 | 2.7 |
| Coeducational | 397 | 97.3 |
| Missing | 5 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.9: Frequency distribution for school enrolment

| School enroIment | Number | $\%$ |
| :--- | :--- | :--- |
| $1-25$ | 12 | 2.9 |
| $26-100$ | 39 | 9.6 |
| $101-200$ | 36 | 8.8 |
| $201-400$ | 153 | 37.6 |
| $401-600$ | 99 | 24.3 |
| $>600$ | 68 | 16.7 |
| Missing | 6 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.10: Frequency distribution for school's SES

| Location of school: SES | Number | $\%$ |
| :--- | :--- | :--- |
| High | 73 | 18.5 |
| Medium | 189 | 47.8 |
| Low | 133 | 33.7 |
| Missing | 18 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.11: Frequency distribution for school's rural/urban indicator

| Location of school: rural/urban | Number | $\%$ |
| :--- | :--- | :--- |
| Urban | 224 | 56.7 |
| Rural | 156 | 39.5 |
| Isolated | 15 | 3.8 |
| Missing | 18 |  |
| Total | $\mathbf{4 1 3}$ | $\mathbf{1 0 0}$ |

Figure A3.12: Frequency distributions for percentage of students in classroom and people in the community who are:

| a LBOTE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| \% | Classroom Number | \% | Community Number | \% |
| 0-5 | 238 | 71.9 | 199 | 54.5 |
| 6-10 | 36 | 10.9 | 86 | 23.6 |
| 11-20 | 19 | 5.7 | 25 | 6.8 |
| 21-40 | 19 | 5.7 | 35 | 9.6 |
| 41-60 | 8 | 2.4 | 9 | 2.5 |
| > 60 | 11 | 3.3 | 11 | 3.0 |
| Missing | 82 |  | 48 |  |
| Total | 413 | 100 | 413 | 100 |
| b Indigenous |  |  |  |  |
| \% | Classroom |  | Community |  |
|  | Number | \% | Number | \% |
| 0-5 | 244 | 71.3 | 244 | 58.2 |
| 6-10 | 67 | 19.6 | 67 | 27.9 |
| 11-20 | 17 | 5.0 | 17 | 7.4 |
| 21-40 | 6 | 1.8 | 6 | 4.0 |
| 41-60 | 3 | 0.9 | 3 | 0.8 |
| > 60 | 5 | 1.5 | 5 | 1.6 |
| Missing | 71 |  | 71 |  |
| Total | 413 | 100 | 413 | 100 |
| c Low socio-economic status |  |  |  |  |
| \% | Classroom |  | Community |  |
|  | Number | \% | Number | \% |
| 0-5 | 90 | 25.2 | 83 | 21.9 |
| 6-10 | 83 | 23.2 | 91 | 24.0 |
| 11-20 | 56 | 15.7 | 70 | 18.5 |
| 21-40 | 53 | 14.8 | 62 | 16.4 |
| 41-60 | 32 | 9.0 | 32 | 8.4 |
| > 60 | 43 | 12.0 | 41 | 10.8 |
| Missing | 56 |  | 34 |  |
| Total | 413 | 100 | 413 | 100 |
| d Recent migrant |  |  |  |  |
| \% | Classroom |  | Community |  |
|  | Number | \% | Number | \% |
| 0-5 | 266 | 89.3 | 273 | 84.8 |
| 6-10 | 17 | 5.7 | 32 | 9.9 |
| 11-20 | 10 | 3.4 | 11 | 3.4 |
| 21-40 | 3 | 1.0 | 3 | 0.9 |
| 41-60 | 2 | 0.7 | 2 | 0.6 |
| > 60 | 0 |  | 1 | 0.3 |
| Missing | 115 |  | 91 |  |
| Total | 413 | 100 | 413 | 100 |
| e Refugee |  |  |  |  |
| \% | Classroom |  | Community |  |
|  | Number | \% | Number | \% |
| 0-5 | 259 | 97.4 | 283 | 96.9 |
| 6-10 | 7 | 2.6 | 8 | 2.7 |
| 11-20 | 0 |  | 1 | 0.3 |
| 21-40 | 0 |  | 0 |  |
| 41-60 | 0 |  | 0 |  |
| > 60 | 0 |  | 0 |  |
| Missing | 147 |  | 121 |  |
| Total | 413 | 100 | 413 | 100 |


| f Transient |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| \% | Classroom Number | \% | Community Number | \% |
| 0-5\% | 179 | 57.2 | 170 | 49.7 |
| 6-10\% | 73 | 23.3 | 84 | 24.6 |
| 11-20\% | 30 | 9.6 | 50 | 14.6 |
| 21-40\% | 24 | 7.7 | 25 | 7.3 |
| 41-60\% | 7 | 2.2 | 10 | 2.9 |
| > 60\% | 0 |  | 3 | 0.9 |
| Missing | 100 |  | 71 |  |
| Total | 413 | 100 | 413 | 100 |
| $g$ People with disabilities |  |  |  |  |
| \% | Classroom Number |  | Community Number |  |
| 0-5 | Number | $\stackrel{\text { \% }}{ } 44.5$ | Number | \% 33.2 |
| 6-10 | 111 | 31.1 | 131 | 35.4 |
| 11-20 | 57 | 16.0 | 84 | 22.7 |
| 21-40 | 17 | 4.8 | 19 | 5.1 |
| 41-60 | 8 | 2.2 | 10 | 2.7 |
| More than 60 | 5 | 1.4 | 3 | 0.8 |
| Missing | 56 |  | 43 |  |
| Total | 413 | 100 | 413 | 100 |

