Abstract

The project set out to investigate one primary school where, for four years or more, boys have outperformed girls in standardized Year 3 and 5 Basic Skills Tests in literacy and numeracy, which contradicts general findings on male and female performance in standardized literacy and numeracy testing. The school placed a heavy emphasis on literacy programs, which appear to be making a difference to the boys. Over time, there has been a slight improvement in boys’ literacy performance but the greatest area of growth is generally boys’ numeracy, rather than boys’ literacy.

Further aims of the study were to isolate school-based factors, which are potentially responsible for this phenomenon, from community-based factors and to explore the possibility that, rather than boys being advantaged, girls were actually being disadvantaged by practices at the school. The approach adopted by the research team employed intensive case-study methods and ethnographic approaches, including interviews, document analysis, and structured and unstructured observation of a range of school activities.

This paper describes how the school has transformed itself, the effects that this has had upon the teaching and learning environment and the results that have been achieved in the key areas of numeracy and literacy.

Introduction

The study was initiated through a conversation between the Principal of ‘Peppercorn Public School’ and one of the researchers in 2003. The Principal suggested that a possible topic for research was the apparent superior performance of boys over girls at the school in the NSW Years 3 and 5 Basic Skills Tests (BST) in literacy and numeracy.

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1 All names are pseudonyms.
2 ‘This test is for all students in Years 3 and 5. … It consists of a literacy and numeracy component. All NSW [government] primary students in Year 3 and Year 5 undertake the test. In addition, all Year 3 and 5 students from systemic schools in all NSW Catholic Dioceses, as well as many independent schools and home schoolers elect to run the test.’ (NSW DET, www.schools.nsw.edu.au/learning/k-6assessments/basicskills.php).
The Principal and other staff at the school were at a loss to explain the phenomenon, which was thought to have been occurring over the past four years or so.

A research proposal was developed and an application for a UNE University Research Grant (URG) was successfully submitted in October 2003.

The project was titled:

Investigation of the factors responsible for the superior performance of male students in standardised testing at one primary school.

The research proposal stated:

The project will investigate one primary school … where, for four years or more, boys have outperformed girls in standardized Year 3 and 5 Basic Skills Tests in literacy and numeracy. This contradicts general findings on male and female performance in standardised literacy and numeracy testing.

The project aims to uncover the factors responsible for or contributing to this situation. To do this, the project needs to establish the dimensions of difference between male and female students’ performance in the BST.

Further aims are to isolate school-based factors (programs, practices, etc) from community-based factors (drawing area of school, alternative schools) that are potentially responsible for this phenomenon and to explore the possibility that, rather than boys being advantaged, girls are actually being disadvantaged by practices at the school. A final aim is to distinguish between contextual and more general, and hence transferable, factors, that other schools might find valuable in improving the performance of male (and possibly female) students.

The research team developed a methodology for the project and the study commenced in February 2004. The approach taken was based on intensive case study methods and ethnographic approaches, including interviews (teachers, other staff, parents/community members), document analysis, and structured and unstructured observation of lessons, school activities, assemblies, lunch and recess activities.

It is acknowledged that this is a small and limited case study and it is not possible to offer definitive findings on boys’ or girls’ education because of the complex interrelationship of factors and forces. Nevertheless, we feel there are valuable insights and findings that are worthy of consideration and further exploration.

Literature

Patterns of Male and Female Primary Achievement

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3 In 2005, Dinham moved to the University of Wollongong and Mays to Deakin University.
There is not a great deal of literature about mathematics and literacy achievement in the primary school. The literature discusses some of the main factors that affect male and female achievement at the primary level, but the bulk of research has been conducted at secondary/middle years’ levels (e.g., Collins, Kenway & McLeod, 2000; Marks & Ainley, 1997; Rothman, 2002; Rothman & McMillan, 2003).

Most of the work at primary level focuses on standardised testing. For example, in NSW, the BST is used as the basis for assessing student performance in numeracy and literacy at the primary level. Since 1996, the trends in the BST Year 5 literacy results at the state level have showed that girls have outperformed boys by several percentage points on average. However, in the area of numeracy boys consistently outperformed girls, although the difference was not statistically significant. Similar trends have been shown at the Year 3 BST. Over the period, girls outperformed boys in literacy by about two percentage points; however, the reverse was true for numeracy (but again the difference was not statistically significant). Similar observations have been made at the national level (Cresswell, Rowe & Withers, 2002).

The report of the Federal parliamentary inquiry into the education of boys, Boys: Getting it Right (House of Representatives Standing Committee, 2002), looked at education in Australia for the period 1975 to 1995. It showed that the literacy achievement of fourteen-year-old boys declined steadily over this period. In 2000, 9 percent of boys in Year 3 and 15 percent of boys in Year 5 failed to achieve minimum reading benchmarks. This compared with just 6 percent of girls in Year 3 and 10 percent of girls in Year 5.

Other research has attempted to identify the causes for these observations. An early study by Berliner and Casanova (1987) showed that motivation, for example, varies for boys and girls – boys are less motivated by praise than are girls and tend to prefer competitive tasks (either against each other or against themselves: e.g., timed tests). The Leverhulme Numeracy Research Project attempted to find explanations for underachievement in mathematics/numeracy that were linked to social factors. Some of the main factors that were identified included teaching methods and organisation, school leadership, home contexts and teacher subject knowledge and expectations (Tomlin, Street & Baker, 2000).

In Australia, Rowe and Rowe (2002) found that gender differences in education were outweighed by the impact of quality teaching, supported by strategic teacher professional development. This raises the questions: ‘Which boys?’, ‘Which girls?’, when considering successful strategies for improving both literacy and numeracy outcomes. Factors that were identified as having an impact on the outcomes of education include placing a strong focus on support for literacy, verbal reasoning and written communication. However, the types of support varied for males and females and included verbal support for girls and physical/visual support for boys (Rowe & Rowe, 2002).

Successful literacy strategies include focusing on support for literacy across the curriculum, having highly structured lessons with frequent changes of activity, having clear objectives with detailed, but simple, instructions, and using continuous assessment and monitoring of students to identify under-achievers.
To achieve these outcomes, professional development for teachers must be a priority. Similar findings were made in New Zealand (Alton-Lee, 2003).

A study of boys’ education by Lingard, Martino, Mills and Bahr (2002) examined social and pedagogical factors. Some of the main findings included differences in preferences for extra-curricular activities, with boys preferring sports and technological games. Boys were typically found to be more disruptive than girls (by a factor of 2.5, although this did not necessarily mean that girls were on-task more than the boys), and boys perform better when work is intellectually demanding and connected to their lives.

In the area of improving student achievement in mathematics, Grouws and Cebulla (2000) found that one of the most important factors was focusing on meaning and making explicit the connections between mathematics and other subjects.

Frigo et al. (2004) investigated the literacy and numeracy needs of Indigenous students as part of the wider Longitudinal Literacy and Numeracy Survey (LLANS) conducted by the Australian CER. The study involved 152 Indigenous students in early years of primary schooling from thirteen schools, where assessment (for both literacy and numeracy) took place at five points in time over the first three years of schooling. It was found that the Indigenous students began at a similar level to the main cohort. However, by the fifth assessment (in the third year) substantial gaps had emerged. Among the factors that were found to impact on the success of Indigenous students were: attendance, attentiveness in class, language background, and regional and school factors where the school had identified and addressed the specific learning needs of Indigenous students.

**Male and Female Literacy Achievement**

It is generally accepted in Western nations that girls’ literacy performance is superior to that of boys. This phenomenon has been documented since the beginning of the 17th century, but only relatively recently has boys’ performance been viewed – by some - as underachievement rather than as simple difference (Alloway & Gilbert, 1997; Cohen, 1998). Literacy performance has become a significant issue now because it is recognised as a foundation stone of achievement in most school subjects (including mathematics), and because hard data available from standardised testing has been able to verify the extent of the gender gap. Recent research into patterns of male and female literacy achievement tends to fall into one of three camps: a skills focus which tracks levels of achievement, a physiological account of difference, and a cultural studies approach which seek to account for difference in achievement in terms of socio-economic class, gender and the social construction of discourse.

There have been a number of Australian government enquiries into boys’ and girls’ literacy achievements. In 1994, a NSW parliamentary inquiry (O’Doherty) found that boys under-perform in literacy tasks compared to girls at both Year 3 and Year 6, and noted boys were far more likely to be in remedial reading classes than girls. In national benchmarking exercises it was shown that boys were behind girls in all aspects of literacy, particularly those involved with expression, such as writing (Baxter, 2001; Masters & Forster,
Later analyses of the NSW Basic Skills Test showed that in 2000, 9 percent of boys in Year 3 and 15 percent of boys in Year 5 failed to achieve minimum reading benchmarks. This compares with 6 percent of girls in Year 3 and 10 percent of girls in Year 5 (House of Representatives Standing Committee on Education and Training, 2002). A National Report on Schooling in Australia (Ministerial Council on Education, Employment, Training and Youth Affairs, 2001) showed that between 1999 and 2001, in achievement of the reading benchmarks, females outperformed boys by around 5 percentage points in both Year 3 and Year 5.

Literacy achievement is also strongly affected by socio-economic status (SES) and there is an interrelationship between the effects of SES and gender on literacy (Alloway & Gilbert 1997, 2002). Even though SES factors influence literacy achievement, boys ranked at the same level socio-economically still under-perform compared to girls at each level of the SES scale, but boys in the higher ranks of the SES scale perform better than girls in the lower ranks (Alloway & Gilbert, 1997). Thus it is arguable that SES has a more significant effect on literacy than gender (Cortis & Newmarch, 2000). Rurality and many non-mainstream racial/ethnic backgrounds also have a negative effect on literacy achievement (Alloway & Gilbert, 2002); in Queensland testing, the single biggest indicator of who failed to reach literacy benchmarks was location (Luke, 2003). Nevertheless, although factors other than gender have significant effects on literacy levels, across all Australian primary school students, girls outperform boys.

A number of deterministic neurobiological and physical maturational theories have attempted to explain the differences in male and female literacy achievement (Alloway & Gilbert, 2002), although these have been criticised as illogical biological determinism. Martino (2003) points out, as an example, that boys do have the fine motor skills and attention spans for electronic games, even though they may not exhibit them in school-based literacy tasks. These theories are put further into question by the fact that socio-economically advantaged boys outperform both boys and girls from backgrounds of disadvantage, and more especially by the fact that Asian boys tend to achieve high levels of literacy (Lingard et al., 2002; Skelton, 2001). Other theories focus on deficit models such as lack of male teachers, but there is little data to substantiate links between gender of teacher and skill acquisition (Cortis & Newmarch, 2000). Lack of ‘male role models’ in single parent low SES families is often mentioned as another factor disadvantaging boys, although research has shown that fathers tend to contribute very little to literacy at home and it is the maternal literacy influence that is significant (Alloway & Gilbert, 2002; Breen as cited in Cortis & Newmarch, 2000).

The social construction of masculinity is also mentioned as a powerful factor in boys’ literacy acquisition. Literacy is associated with femininity and becomes oppositional to masculinity (Martino & Palotta-Chiarolli, 2003). Boys are taught to externalise their masculinity whereas literacy is essentially an internal process (Rodgers, 2001). Alloway and Gilbert (1997) argue that school literacy

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4 It is acknowledged that the use of term ‘role model’ can be controversial, as it is often construed as meaning stereotypical role models. Where used in this paper, the term derives from cited material or direct quotes.
runs counter to our culture’s hegemonic construction of masculinity, and boys are not tested on masculine aspects of their literacy, such as the ability to read the internet, video screens or engage with computers.

A number of national projects and research studies have produced a list of practices that they claim will assist boys’ acquisition of literacy. Those of particular relevance to the current study are: promoting strong messages that literacy learning is essential for everyone; employing a broad range of texts that will interest boys, including fiction with male protagonists; and providing for and valuing children’s diverse interests (Alloway & Gilbert, 2002). The first stage of the DEST Lighthouse Programme (Zbar, Bereznicki & Trust, 2003), established to specifically address the educational needs of boys, recommends adopting a flexible whole school approach; using positive male role models in and out of school; focusing on literacy; and ensuring good teaching with high expectations. Teachers’ high expectations are a particular feature of reading success in children from low SES backgrounds (Comber, Badger, Barnett, Nixon & Pitt, 2002). Explicit phonics teaching is also regarded as important for the successful learning of boys (House of Representatives Standing Committee on Education and Training, 2002; Zbar et al., 2003).

Another report into boys’ literacy specifically aimed at providing strategies for teachers (Lingard et al., 2002) found that rejecting the deficit model produced success. In contrast, the ‘Productive Pedagogies’ model (requiring an approach that is intellectually challenging, relevant, and encouraging of risk-taking) made a positive difference to boys. The report also cited overall school culture as having a major influence on boys’ learning and attitudes. This is particularly so in schools where there is significant socio-economic disadvantage. Strong leadership, balanced programs, and supportive professional learning communities counteract this disadvantage and foster literacy success (Luke, 2003).

Male and Female Maths Achievement

Most of the work on gender differences in mathematics achievement has focussed on students in high schools. Reports from the Longitudinal Study of Australian Youth (LSAY), which considered the achievement of 14-year-olds, indicated that over a twenty-year period from 1975 to 1994 there was little change in achievement in numeracy (Marks & Ainley, 1997). Where gender differences were identified, these suggested that boys’ achievement had improved over the twenty-year period whereas girls’ achievement remained stable, and that boys significantly outperformed girls (Rothman, 2002).

In the primary school sector, numeracy research has largely focussed on the early childhood years, K to 2 (e.g., Doig, McCrae & Rowe, 2003), with little attention to gender differences. Where differences in achievement in mathematics have been identified in the primary sector, these tend to favour boys but are not statistically significant. Over a period of about ten years, programs designed to address identified differences, through efforts to improve the participation and achievement of girls in mathematics and science, appear to have been successful (Lokan, Ford & Greenwood, 1997, pp. 27-30). The most recent information available from National Benchmark comparisons indicate that there is no difference between girls’ and boys’ numeracy
achievement at either Year 3 or Year 5, both nationally and on a state basis (Ministerial Council on Education, Employment, Training and Youth Affairs, 2001).

Where differences in mathematics performance have been observed, there is some indication that boys prefer competitive tasks, such as timed tests, and girls prefer cooperative approaches. In independent work, boys are more likely to remain engaged, whereas girls tend to socialise (Berliner & Casanova, 1987). This implicates teaching style in achievement differences, and findings from the large-scale Leverhulme Numeracy Project (Brown, 2000) indicated that the quality of teaching was more important than other factors, including gender. This finding has been echoed in other studies where differences between classes within schools accounted for a greater proportion of the variance than did between-school differences (e.g., Hill, Rowe, Holmes-Smith & Russell, 1996). Literacy achievement has also been identified as a good predictor of numeracy achievement (Rowe & Rowe, 2002), particularly in tests that demand high levels of reading.

Quality teaching, school leadership, culture

It has been increasingly demonstrated that school leadership, and in particular that of the principal, is a major influence on building school climate and culture and shaping school policies and academic programs (Cotton, 2003; Dinham, 2004).

Cotton conducted a meta-analysis of research findings about principals and student achievement and found that principals have a major influence on creating:

• safe and orderly school environments;
• vision and goals focused on high levels of student learning;
• high expectations for student learning.

 Principals of highly effective schools possess and exhibit self-confidence, responsibility, and perseverance. They are visible and accessible and contribute to a positive and supportive school climate. Communication and interaction are important as are providing emotional and interpersonal support. Parent and community outreach and involvement are also significant, as are rituals, ceremonies and other symbolic actions in facilitating student achievement. Principals exert their influence through shared leadership, decision making and staff empowerment, with collaboration an important factor (Cotton, 2003, pp. 7-25).

A recent study of leadership leading to outstanding educational outcomes in NSW public secondary schools revealed similar findings, with principals, faculty heads, deputy principals and others in leadership positions exerting great influence on the creation of a culture and climate where teachers can teach and students can experience academic, personal and social growth and success (Dinham, 2004).

As noted, the role of leadership has been found to be particularly important in creating positive, innovative and productive learning cultures and the facilitation of quality teaching and learning (Review of Teaching and Teacher Education, 2003, p. xxiv). However, leadership succession is also a key issue.
Hargreaves and Fink (2004) note how highly successful and dynamic schools can quickly ‘slide’ backwards with the departure of a successful leader. They also note that deeper, more lasting change is preferable to brief, temporary ‘flurries of change’ (2004, p. 8) in building the foundation for more lasting improvement.

Research in a number of countries has demonstrated that leadership is also a key factor influencing teachers’ occupational satisfaction (Dinham & Scott, 2000), in turn a powerful determinant of teachers’ professional learning and the quality of teaching and learning in a school.

Further, the earlier concentration on the principal has been broadened to include other leaders such as deputy principals, faculty or department heads and teachers themselves (Bush & Harris, 2000; Ayres, Dinham & Sawyer, 2000). The focus of attention has moved from the leader to leadership with the importance of delegation, trust and empowerment being increasingly recognised. There has been a realisation that leadership has both formal and ‘distributive’ aspects, with every teacher a potential leader.

Notwithstanding all of the above, however, it is the individual teacher who makes the most difference to student achievement. While school leaders and teams can create an environment in which student achievement can occur, it is the classroom teacher who adds most to the learning equation, with the exception of the ability of the individual student (Hattie, 2002, 2003). Hattie and his colleagues conducted a meta-analysis of over 500,000 studies and found that students – what each ‘brings to the table’ - account for about 50 percent of the variance in students’ achievement. Homes account for 5-10 percent, schools 5-10 percent, peers 5-10 percent, whilst principals can influence school climate and other school factors. Teachers, however, account for about 30 percent of the variance in student achievement (Hattie, 2003, pp. 1-2).

Hattie and his colleagues identified ‘five major dimensions of excellent teachers’. Expert teachers can:

- identify essential representations of their subject;
- guide learning through classroom interactions;
- monitor learning and provide feedback;
- attend to affective attributes, and
- influence student outcomes. (2003, p.5)

Thus, while there has been ongoing interest in effective schools and effective school leadership, there has been growing emphasis upon researching and facilitating quality teaching in schools because of the recognition, supported by empirical studies, that teachers make the major difference to student achievement, apart from students’ individual capacities.
Design of the Study

Introduction

As noted, this was a case study of one school using predominantly ethnographic methods. Major steps in the study comprised:

1) initial discussions with the Principal;
2) informal school observations;
3) development of time line with key events in the history of the school;
4) analysis of school BST data;
5) literature review concurrent with above;
6) formulation and implementation of interview protocols for teaching staff, other school staff, parents and community members;
7) unstructured lesson observations;
8) formulation and implementation of classroom observation protocols;
9) analysis of data using content analysis (qualitative data) and simple statistical methods (quantitative data on student performance);
10) report writing.5

Major Steps in the Study

1) Initial discussions with the Principal

Three lengthy discussions occurred at the school with the Principal prior to the formal phases of the project.

These discussions ranged over matters such as the history of the school and its community, changes to staff and students over time, patterns of male and female achievement and possible reasons for this, changes in leadership and the philosophy and approach of the present Principal and leadership team, changes since the arrival of the Principal at the school, past and present initiatives, attitudes to academic achievement, relations with system officials, and other issues.

Once the study had been approved by UNE and the NSW DET, three further informal discussions were held with the Principal covering similar ground, probing deeper and exploring new issues and data.

2) Informal school observations

While the research team was in the school for discussions with the Principal, informal observations took place of students and staff at work, activities at recess and lunch, community involvement in the school and the physical and

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5 This paper is based upon the final unpublished report by the authors.
social environment of the school. Team members met regularly and memos and transcripts were considered with emerging ideas and areas for exploration noted for later follow up.

3) Development of time line with key events in the history of the school

Discussions with the Principal and document analysis enabled the development of a time line that was essential to the research team’s understanding of developments in the school. This time line included key events with brief supporting commentary such as appointment of key staff, changes to school enrolments and the reasons for this, new programs and policies introduced to the school, changes in school philosophy, a threat to close the school and its effects, changing power groups, emerging problems and how these were addressed, significant events and successful and unsuccessful initiatives.

The time line was updated with each visit to the school and clarified with the Principal. The team was cognisant of the fact that this was the Principal’s perspective and sought to validate these views and observations through other means in later phases of the research.

4) Analysis of school BST data

Members of the research team were given access to confidential school BST performance data and were able to build up a picture of male and female performance, including trend data. This was ‘mapped’ against the timeline mentioned previously which assisted in gaining an understanding of key events and trends and possible relationships to student performance.

5) Literature review concurrent with above

Team members searched the international and local literature in the broad areas of literacy and numeracy achievement, teaching styles, and school culture and leadership. This informed the development of the study.

6) Formulation and implementation of interview protocol for teaching staff, other school staff, parents and community members

It was not possible to interview students (due to conflicting requirements between the UNE Ethics Committee, the Principal and DET), although formal and informal observations of students took place every time the researchers were in the school. With understanding gained from earlier phases, an interview protocol was developed for teachers, other staff and community members.

Three or four research team members were present for the interviews, which were held with the interview subjects at a private location in the school. Interviews took 30 to 40 minutes and team members each took their own notes which were compared and combined following the typing up of a first draft. Key quotations were noted. All interview subjects were volunteers.

There was a deliberate strategy to postpone unstructured and structured classroom observations and visits until such time as there was a sound foundation and understanding of background events and possible factors.
7) Unstructured lesson observations

The research team determined to start lesson observations in a largely unstructured fashion, using a simple framework of ‘literacy’, ‘numeracy’ and ‘general’ observations. The plan was to begin with the youngest level classes and move upwards through the school. Once again, teachers volunteered to have members of the research team in their classes.

Four early years classes (three Stage 1, one Stage 2) were each observed by two researchers for one ‘session’ (i.e., morning to recess, recess to lunch). Preliminary content analysis of these data then informed the formal classroom observation protocol.

8) Formulation and implementation of classroom observation protocols

As noted, the largely unstructured lesson observations were used to develop the protocols for structured lesson observations. The framework of NSW Model of Pedagogy (NSW DET, 2003) also informed the classroom observation protocol. In total, nine of the school’s classes and teachers were observed, including specialist RFF (Release from Face to Face) classes taken by staff in areas such as science and technology and computing. Small Reading Recovery sessions and Special Education classes were also observed by team members. Two members of the research team observed each lesson making individual notes using the protocol and then clarifying and combining their responses. Through these methods, all classes in the school were observed in some fashion.

9) Analysis of data using content analysis (qualitative data) and simple statistical methods (quantitative data on student performance)

Data gathered from structured interviews and classroom observations were analysed using standard procedures of content analysis, including identification of concepts/open coding, formulation of categories, and relating categories (Strauss & Corbin, 1990). There was no attempt to quantify the frequency of concepts observed in this largely exploratory study. A key aspect of the data analysis and theory building process was, however, the continual interrogation of the data, the triangulation of findings and validation of emergent themes and factors. Discussions, debriefings and meetings by the project team were an important aspect of the data analysis process.

10) Report Writing

Report writing began in February 2005. A first draft of a report was completed by the end of April 2005. This draft report was revised and completed in June 2005. The school and the NSW DET each received a copy of a final report.

Results of the Study

The School and Its Community

a) Environment

Peppercorn Public School is situated close to the heart of a large country town in New South Wales. It is on a bus route, and next door to a large shopping centre. The surrounding area could best be described as falling into a lower socio-economic bracket, with a mix of residential and light industrial property,
old houses with sparse gardens and some run down and vacant former commercial and industrial buildings.

Peppercorn Public School celebrated its centenary in the 1980s. The original building still exists on the site, and additional buildings have been erected at various periods in the school’s history. The school now has a collection of weatherboard and brick buildings scattered across the site, and the school library is housed in the only demountable building. A sun shelter has recently been erected over the main playground to provide weather protection for students. The site is fairly extensive, with grassed and concrete playing areas, mature trees and attractive gardens at the front entrance.

Maintaining the buildings is a constant concern. In the past ten years the school has been attacked by termites and rodents, suffered flooding and drainage problems, leaking roofs, and difficulties with plumbing. A planned program of installation of air conditioners has seen all but two classrooms so equipped, as well as the office area and staff room.

Because of falling enrolments, space for activities is readily available. The school has a library, specialist computer lab equipped with about 30 computers, a storage and workroom for staff and various small rooms used for specialist services such as school guidance and support teachers. Play areas outside are extensive, and allow for an area restricted to infants’ classes, as well as hard and soft play areas for older students.

The school has created an internal environment that reflects the school’s commitment to ethical behaviour, community spirit and social justice. Walls of main buildings and within classrooms are labelled with slogans such as ‘be kind’, ‘bullies are cowards’, and ‘be helpful to others’. The slogans are changed frequently to reflect different foci in the school. Quotes concerning the importance of literacy are located within the Principal’s office and at other strategic positions within the school where they will be seen by students, staff and visitors.

b) School Community

The school has a current (2004) enrolment of approximately 270 students. This has fallen over the last ten years, and continues to fall. As a result the school has lost staff, including one teacher during the period of the study, which led to considerable reorganisation of classes in the middle of 2004.

Many of the parents of the children at the school are themselves former students. The student population is largely drawn from low socio-economic backgrounds and there are numerous single-parent families, many of which have no adult male present in the home. Parents are encouraged to help in the running of the school and the Principal supports these parents (mostly women) in taking up some form of education and/or paid employment.

The staff profile is of 3 males and 10 full-time females, but there are others who work on a part-time (or voluntary) basis. The staff at Peppercorn are largely mature-aged and very experienced.

Most K-2 (infants) staff are Reading Recovery trained and there is a special language class for students who are having literacy difficulties. Improvements
in reading levels are publicly acknowledged. The Principal regards this as a whole-school approach rather than a Reading Recovery special initiative.

c) Key Changes in the last decade

Several significant changes have occurred over the last ten years. The first is the change in enrolment patterns which have had a considerable effect on the school. From 1994, numbers at the school dropped as children who would formerly have enrolled at Peppercorn went instead to new schools in the area (one independent religious, the other a public school serving a neighbouring higher SES area) and to other schools in the town.

This resulted in a decline in the number of students from more affluent SES backgrounds. This fall in numbers has been exacerbated by publicity suggesting that the school may close, as well as its unfavourable proximity to a major shopping centre development. During the 1990s, the school had a disproportionately high number of children with behaviour problems, predominantly boys, who were taken in, some staff believing this was a means to keep student numbers up.

Over the last ten years, the school has also sustained a loss of its more able students, particularly girls, to Gifted and Talented classes in other schools, often taking their siblings with them. Teachers frequently commented that the school is now without a ‘top-end’ or ‘cream’.

The other significant development is a shift in school culture resulting from a change of leadership. The current Principal was appointed in 1995. At this point, according to some staff, the school culture in general tended to be divisive and conservative. The teachers adopted an authoritarian stance towards students (‘teachers were always right’). ‘Good’ students were perceived as those coming from ‘good families’ compared to those from lower SES backgrounds with all their attendant problems, such as single parent families, itinerant status and poverty. These ‘bad’ families were generally regarded as having responsibility for their bad fortune. The current Principal has worked hard to counter these attitudes stating that teachers should make less value judgements about poor families and their habits. She would like such teachers to be able to ‘walk in the shoes of disadvantaged families’ to better understand the wide-ranging effects of economic and social disadvantage.

Previously, there were few high expectations of children from ‘bad’ families. The staff had been in the process of adopting the Northern Territory ‘Zero Tolerance’ policy to solve the school’s pressing social problems, characterised as a culture of bullying, yelling and scuffling. When misbehaviour occurred, children were automatically placed on the defensive and ‘backed into corners so that they had to fight their way out’. This has changed markedly over the past few years. Now the complaints of children and staff are heard on an equal footing, and the Principal maintains an open door policy to deal with the problems of children, parents and staff.

The present Principal’s overriding approach to troubles in the school is to instigate an evolving set of solutions that are implemented on a trial basis, instituted or changed according to success. A particularly prominent aspect of this is the gradual revamping of the welfare policy that now focuses on helping students and their families, especially those who are disadvantaged. This has
ranged from providing meals for children whose behaviour might be linked to poor nutrition, to finding work within the school for unemployed parents. Parents are invited to work in a wide range of capacities at the school, particularly males, due to their overall lack of presence. Interviews with teaching and administrative staff reinforce the perception that student welfare is a key feature of this ‘caring’ school. At the Principal puts it: ‘welfare is the overarching concern’. The school is now frequently described as a ‘safe’ school.

Community service is a vitally important aspect for all at the school. Parents who do not come to the school are seen as an ‘untapped resource’, and the Principal believes that the school itself has a responsibility in the wider community. She employs workers from programs run by the Commonwealth Rehabilitation Service, and has offered an unused building in the school as the base for the Smith Family Learning for Life program.

The focus on community appears to be distinctly stronger than that on academic achievement for its own sake. Citizenship behaviour is acknowledged and rewarded at least as much as academic success. All this is representative of the school’s commitment to inclusion. For example, every child has something printed in the school magazine, and citizenship and participation awards are ranked equally with academic awards. Many of the staff in interviews commented explicitly on the school’s culture of inclusion.

There has been a conscious decision to raise sporting involvement for all children, and two dance groups have been created, one for all children, and one specifically for boys. One teacher noted that school culture is changing as boys are becoming less aggressive. Teaching staff are involved in extra and cocurricula activities ranging from traditional sports to Tournament of the Minds. The current male Assistant Principal is seen as a major influence on the re-emergence of sport in the school and on discipline and behaviour.

Divides have also been broken down as the gap between Infants and Primary has given way to a K-6 continuum. There has been a conscious move towards integration of the sexes, and of special needs students within mainstream classes and activities. This has been reflected in the playground where age-based and gender-based spaces have mostly been abolished. Peppercorn has, in the words of one teacher, become ‘a whole school’.

d) Staff Attitudes

The key influence on staff attitudes stems from the change in headship with the appointment of a new Principal in 1995. She instigated a number of changes within the staff, based on her observation of specific problem areas.

Most staff had not sought professional development and some were resistant to new ideas. The Principal focussed on a policy of ‘change’ and ‘renovation’, which applied not just to the cleaning out of classrooms but also to staffing issues. Staff have been ‘moved around’ to keep them involved in a spectrum of teaching situations to counter complaisance and atrophy. A senior IM teacher was relocated to a special language class with great success. The physical location of classrooms has also been changed. A significant example is the relocation of the IM classroom from ‘the dungeon’ to a room in the middle/mainsteam of the school. Wherever possible, casual teaching staff are
handpicked for genuine commitment to education and best ‘fit’ with the school.

During the interviews (see below), the compassionate and caring nature of the school was referred to by about three-quarters of those interviewed. Staff were regarded as experienced and hard working. Most teachers have spent a large part of their careers in country New South Wales, in a variety of small and larger schools, often around the local area.

Parents were supportive of the staff and appreciated their willingness to talk. The easy-going relationship between teachers and parents was summed up by one parent who said, ‘When you walk in here, you feel welcome; you’re not treated like just another number.’ Another parent reported how she felt that the school had been exceptional at helping her son. Programs had been set up so that she could help him at home, and he was now doing well at school. In contrast, another son who had gone to a different primary school did not get the same kind of support.

*BST Results Last 10 Years*

a) BST Results for the Whole School

Data were taken from the reports provided to the school from the BST. Each year, a summary of the overall mean scores is provided for Year 3 and Year 5 Literacy and Numeracy, disaggregated by sex. Standard errors of measurement and standard deviations are not presented in the summary data. Table 1 shows a summary of the available data. A full discussion of the results can be found in Callingham and Mays (2005).
Table 1
Summary of Mean BST Scores for Males and Females

<table>
<thead>
<tr>
<th></th>
<th>Literacy</th>
<th>Numeracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yr 3 M</td>
<td>47.32</td>
<td>46.88</td>
</tr>
<tr>
<td>Yr 3 F</td>
<td>50.35</td>
<td>47.69</td>
</tr>
<tr>
<td>Yr 3</td>
<td>48.73</td>
<td>47.20</td>
</tr>
<tr>
<td>Yr 5 M</td>
<td>53.98</td>
<td>54.74</td>
</tr>
<tr>
<td>Yr 5 F</td>
<td>54.35</td>
<td>54.54</td>
</tr>
<tr>
<td>Yr 5</td>
<td>54.13</td>
<td>54.65</td>
</tr>
</tbody>
</table>

In Year 5 the boys’ literacy scores were higher than those for the girls in 2002 and 2003. A similar situation was also apparent in numeracy in both grades. Figure 1 presents trend data for Year 3 students’ scores in literacy. The overall trend was for Year 3 boys’ literacy scores to increase slightly while Year 3 girls’ literacy scores decreased. Despite the greater rate of increase, however, the Year 3 boys were still scoring less well than the girls by the end of the period.
When similar data were considered for numeracy, the trend for boys to improve appeared even more marked. Around 1997, boys’ scores overtook those of girls and the apparent improvement has continued. These findings are shown in Figure 2.

The patterns in literacy results for Year 5 showed a similar trend (see Figure 3). As with Year 3 data, the boys were scoring below the girls at the start of the period. However, around 1999, the boys’ trend score overtook that of the girls, and continued to rise.
A similar, but more marked trend was shown in the Year 5 numeracy results (see Figure 4). Girls’ scores, in particular, showed a downward trend, whereas the boys’ scores showed some fluctuation from year to year but little overall change.

Figure 4. Ten-year trends in Year 5 numeracy scores.

The visual impact of the graphical displays suggesting improving performances by boys is compelling. However, the regression equations are less convincing. Table 2 shows the trend equations for literacy and numeracy achievement over ten years for Years 3 and 5. These suggest that over that period there has been little overall change in achievement, except for some gains in Year 5 boys’ literacy and a drop in both Year 3 and Year 5 girls’ numeracy. In general, when the relationships are considered, the data suggest a small improvement in boys’ achievement in literacy in Year 5, and a drop in...
girls’ numeracy achievement, rather than an improvement in boys’ performances overall.

Table 2.
Trend Equations for Male and Female Achievement over Ten Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Equation</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male Literacy</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>Female Literacy</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Male Numeracy</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Female Numeracy</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Year 5

|        | Male Literacy     | 0.25  |
|        | Female Literacy   | 0.10  |
|        | Male Numeracy     | 0.00  |
|        | Female Numeracy   | 0.62  |

The change in performance from Year 3 to Year 5 was also analysed for each of the cohorts for which data were available. Figure 5 shows the growth measures in literacy performance. The lowest overall growth occurred for the Year 3 cohorts of 1997 and 1998. In general, the comparison between the mean growth of boys and girls showed little difference, usually around one or two score points. There were two exceptions, however. The Year 3 cohort of 1993 and the Year 3 cohort of 2000 showed much greater gains for boys than for girls. Apart from these two groups, there was little to suggest that the school made a greater difference in literacy for boys than for girls.

![Growth measures (Literacy)](image)
Figure 5. Growth in literacy performance from Year 3 to Year 5.

The patterns for numeracy performance were rather different, as shown in Figure 6. In numeracy, the lowest growth period was from 1994 to 1996. For the Year 3 cohorts of 1996 and 1997 there was little difference in growth between boys and girls. For all other years, however, performances for boys appeared to improve more than those of girls, and this was particularly marked in the period from 1998 onwards.

![Growth measures (Numeracy)](image)

**Figure 6.** Growth in numeracy performance from Year 3 to Year 5.

**Matched Data**

In recent years, more information has been provided to schools regarding their BST results. Apart from the overall scores, literacy data are now decomposed into two components, reading and language. Data are also available for tracking the performances of individual students from Year 3 to Year 5. Such data provide the means for identifying growth in the students involved. Because the school has a high transient rate, overall data can be deceptive. For this reason, the data for individual students who sat both the Year 3 and Year 5 BST at the school were also examined. These data were only available for the Year 3 cohorts from 2000 and 2001. Matched data were available for a total of 41 students of whom 25 were boys and 16 were girls, with the 2000 cohort comprising 18 students and the 2001 cohort comprising 23 students.

Scores for literacy, reading, language and numeracy at both Years 3 and 5 were analysed. This was done for the complete group, for boys and girls, and for the separate cohorts. All data sets were normally distributed. No significant cohort effects were observed for any of the areas. However, some significant effects were found when the data were analysed from a gender perspective. Table 3 contains summary data by year level for the pooled group of 41 students, including mean scores and standard errors for both literacy and numeracy.
Table 3
Summary of mean scores for students in matched set

<table>
<thead>
<tr>
<th></th>
<th>LITERACY</th>
<th>NUMERACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 3 All</td>
<td>$\overline{X} = 47.105$</td>
<td>$\overline{X} = 48.285$</td>
</tr>
<tr>
<td></td>
<td>$s_X = 1.075$</td>
<td>$s_X = 1.1206$</td>
</tr>
<tr>
<td>Year 3 Boys</td>
<td>$\overline{X} = 48.856$</td>
<td>$\overline{X} = 50.440$</td>
</tr>
<tr>
<td></td>
<td>$s_X = 1.274$</td>
<td>$s_X = 1.437$</td>
</tr>
<tr>
<td>Year 3 Girls</td>
<td>$\overline{X} = 44.369$</td>
<td>$\overline{X} = 44.919$</td>
</tr>
<tr>
<td></td>
<td>$s_X = 1.7377$</td>
<td>$s_X = 1.476$</td>
</tr>
<tr>
<td>Year 5 All</td>
<td>$\overline{X} = 54.688$</td>
<td>$\overline{X} = 55.171$</td>
</tr>
<tr>
<td></td>
<td>$s_X = 0.9716$</td>
<td>$s_X = 1.098$</td>
</tr>
<tr>
<td>Year 5 Boys</td>
<td>$\overline{X} = 56.008$</td>
<td>$\overline{X} = 57.604$</td>
</tr>
<tr>
<td></td>
<td>$s_X = 1.196$</td>
<td>$s_X = 1.3685$</td>
</tr>
<tr>
<td>Year 5 Girls</td>
<td>$\overline{X} = 52.625$</td>
<td>$\overline{X} = 51.369$</td>
</tr>
<tr>
<td></td>
<td>$s_X = 1.553$</td>
<td>$s_X = 1.4061$</td>
</tr>
</tbody>
</table>

The data show that boys outperformed girls in both literacy and numeracy at each year level; however, only the differences for numeracy were statistically significant (at Year 3 the values were $t = 2.566$, $p = 0.014$, and at Year 5 they were $t = 3.042$, $p = 0.004$). For literacy, the difference in mean scores was not statistically significant. In fact, the only statistically significant result was in the language scores at year 3, where the boys again outperformed the girls ($t = 2.756$, $p = 0.009$).

Box and whisker plots comparing numeracy scores by gender for each year level are shown in Figures 7a and 7b and plots of the literacy results are shown in Figures 8a and 8b. The shaded box indicates the range of scores within which half of the group are situated. The top of the box is the 75th percentile, and one quarter of the scores are located above this. The range of these scores is indicated by the ‘whisker’, and extreme outliers are separately indicated by a small circle. The bottom of the box is the 25th percentile, and one quarter of the scores are located below this value. The dark horizontal line indicates the median: the point where fifty percent of the scores are above, and fifty percent below the median value.
The distribution of scores shown by the box plots indicates differences between boys and girls in the different areas. The Year 3 numeracy results show the median towards the bottom of the box. This indicates that the distribution of girls’ scores is uneven, with the upper half relatively spread out. In contrast the boys’ scores are more evenly distributed, suggesting that in general the girls’ group has less spread of ability. Comparison of the median scores shows that the median of the boys’ scores is above the 75th percentile of the girls scores, further indicating better performance by the boys in Year 3 numeracy tests. In Year 5, the girls’ performance has improved, but the boys median score is still above the 75th percentile for girls. In other words, the boys retain their advantage over the girls in numeracy.
Different patterns are seen in literacy scores. In both Year 3 and Year 5, girls’ scores are widely distributed. The boys’ scores, however, are still better than those of the girls, although in Year 5 the whisker indicates that approximately ten percent of the girls out perform the best boys. In Year 5, the boys’ literacy scores show a similar overall distribution to that of the Year 3 girls’ numeracy. There is also a long ‘tail’ in the boys’ literacy in Year 5, shown by the lower whisker.

The next step was to consider the growth score (i.e. the difference between the Year 5 score and the Year 3 score) for each student in each area. The results (including 5% trimmed means and the number of outliers) are shown in Table 4, and histograms for literacy and numeracy are shown in Figures 9a and 9b respectively. In some cases, students actually regressed, i.e. they scored lower on the Year 5 BST than they did on the Year 3 BST (one boy in numeracy, and one boy and two girls in literacy). However, on average, the group showed a growth of 7.5 points in literacy and 6.9 points in numeracy.

Table 4. Average growth data for matched students

<table>
<thead>
<tr>
<th></th>
<th>LITERACY</th>
<th>NUMERACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>All n = 41</td>
<td>$\overline{X} = 7.583$</td>
<td>$\overline{X} = 6.885$</td>
</tr>
<tr>
<td></td>
<td>$s_{\overline{X}} = 0.6788$</td>
<td>$s_{\overline{X}} = 0.5537$</td>
</tr>
<tr>
<td></td>
<td>Trim mean* = 7.757</td>
<td>Trim mean = 6.4722</td>
</tr>
<tr>
<td></td>
<td>1 outlier (below)</td>
<td>No outliers</td>
</tr>
<tr>
<td>Boys n = 25</td>
<td>$\overline{X} = 7.1520$</td>
<td>$\overline{X} = 7.1640$</td>
</tr>
<tr>
<td></td>
<td>$s_{\overline{X}} = 0.7284$</td>
<td>$s_{\overline{X}} = 0.7737$</td>
</tr>
<tr>
<td></td>
<td>Trim mean = 7.2533</td>
<td>Trim mean = 7.3056</td>
</tr>
<tr>
<td></td>
<td>1 outlier (below)</td>
<td>No outliers</td>
</tr>
<tr>
<td>Girls n = 16</td>
<td>$\overline{X} = 8.2563$</td>
<td>$\overline{X} = 6.4500$</td>
</tr>
<tr>
<td></td>
<td>$s_{\overline{X}} = 1.33514$</td>
<td>$s_{\overline{X}} = 0.7600$</td>
</tr>
<tr>
<td></td>
<td>Trim mean = 8.5292</td>
<td>Trim mean = 6.4722</td>
</tr>
<tr>
<td></td>
<td>3 outliers (1 above, 2 below)</td>
<td>No outliers</td>
</tr>
</tbody>
</table>

*5% trimmed mean
The data show that girls achieved greater growth than did the boys in the area of literacy, but that the positions were reversed for numeracy. The outliers for literacy were interesting. These boxplots for the literacy growth data for boys and girls are shown in Figures 10a and 10b respectively. The boxplots suggest that overall the growth for girls was smaller than that for boys, but that there were more outliers who showed extreme patterns.

The only outlier for the boys was one who showed a negative growth of just one point. However, for the girls, there were three outliers – one who had a positive growth of 17 points, one with a negative growth of just 0.1 points and one with a negative growth of nearly six points. This all indicates that the girls’ performances are much more varied than that of the boys.
b) Summary of BST Performance and Trends at the School

The ten-year trend data show the boys improving over that period, and this could lead to the view that this school is successful with boys, more than girls. The numerical data, however, are rather less convincing than the graphically presented data, showing small rates of change and small $R^2$ values, except for the variation in Year 5 girls’ numeracy achievement and, to a lesser extent, Year 5 boys’ literacy achievement. The Year 3 literacy data over ten years, in particular, appear to show regression to the mean, the phenomenon where, over a period of time, lower scores apparently rise, while higher scores decrease. The small variations in the trend data may be more due to statistical artifice than school effects.

The growth data, however, suggest that there is a difference between the achievement of boys and girls in numeracy, although there is little difference in literacy. There are fluctuations from cohort to cohort, and this may reflect aspects of the school context at the time. Such variations in the context may impact on students’ performances quite strongly in the short term. This can be seen in the depressed performance of the 1997 Year 3 cohort, for example, which appeared to carry through to the same cohort’s Year 5 results in 1999. This period coincides with a period of transformation in the school context, with changes to organisation, different emphases in the school’s programs, staff transfers, and pressures from outside the school.

The school principal indicated that there was a heavy emphasis on literacy programs within the school, and that she believed that these were making a difference to the boys. When the mean values from year to year are considered, this may appear to be a reasonable conclusion to draw. The trend data, however, tend to show a different picture. Over time, there has been a slight improvement in boys’ literacy performance but girls’ numeracy performance does appear to drop. This may create a perception that the boys are improving relative to girls, rather than that the girls’ performances are dropping. The growth data also suggest that the greatest area of growth is generally boys’ numeracy, rather than boys’ literacy.

From a consideration of the data presented here, the school’s focus would appear to have been literacy programs in the early years of schooling, with an emphasis on boys’ achievement. The initial summary mean data appear to confirm that this focus has been successful. Further data analysis, however, suggests that the school may need to change its perspective. Girls’ performances are seemingly falling, particularly in numeracy. In addition, Year 5 data, and the growth data, indicate that programs in the middle and upper primary years may need more attention.

Interview Results

There were 19 formal interviews conducted by members of the research team. In nearly all cases, all four members of the research team were present.

There were 13 interviews (from a possible 15) with full and part-time teaching staff (10 female) and six interviews with non-teaching staff, parents and community members (all female). The Principal (female) had been interviewed on six occasions in planning and implementing the research
project but was not formally interviewed using the interview protocol as all areas of the interview protocol had been covered previously.

a) Teaching Staff

Teachers were highly experienced. As is fairly typical in primary schools, two of the three male teachers were in executive positions and all had unbroken service (range 24 to 40 years, mean 30 years). The male teachers had been at the school for four, eight and 28 years.

Of the 10 female teachers interviewed, only one was in an executive position (excluding the Principal). The single promoted female teacher had unbroken service. Other women teachers interviewed typically had service broken by periods of unemployment, casual teaching and maternity leave. Two were currently fractionally employed. Total years of service (including breaks as indicated above) ranged from eight to 38 years, with a mean of 21 years. Female teachers had served at the school over an 11 year period on average, but with some having periods as casual teachers and/or fractional appointments in addition to other breaks from full-time employment.

Broadly, male and female teachers had 300 years total teaching experience (mean 23 years) with slightly less than half this, on average, spent at the school. Again, it is difficult to quantify female, and therefore total, teaching experience of the respondents due to breaks in service.

b) Non-Teacher Interviewees

There were six other people interviewed, all female. Typically, these women had experienced a variety of roles with the school over time, including two who were ex-students. Four had children attend the school. Four of the six had worked in voluntary capacities at some time in the school. Three of those in this category had worked in the canteen and through the P & C on occasion. Two were school administrative assistants with 36 years (22 at the school) and 13 years experience (6 at the school). Another two were teachers’ aides (one casual). Thus, those non-teachers interviewed were able to offer multiple perspectives because of their diverse involvement in the school.

c) Interview Findings

Content analysis of the interview transcripts for teachers and non-teachers revealed the following key categories and themes.

**Description and Opinion of the School**

Two broad aspects emerged in responses to the second question on the interview schedule: *How would you describe [the school]? Are there any features of the school that make it special or distinctive in some way?*. The first aspect concerned how interviewees viewed the school, and the second was how interviewees thought others outside the school perceived it.

There were many comments about how the school had previously been far larger in terms of student numbers and was now smaller, with a nicer more friendly feel to it. A number of interviewees spoke of it being a ‘big, small school’. Despite being in a large regional centre, the school had a ‘country feel’. Nearly all teachers had small country school teaching experience.
Teachers described the school as ‘caring’ and ‘like a big family’, and were ‘very happy here’.

Teachers and non-teachers spoke of knowing students by name and background. They commented that the playground was now less crowded. A common view was that behavioural problems had declined, with fewer instances of bullying, disrespect and teasing: ‘behaviour is better, the wilder elements have gone’, and ‘kids come here from other schools to avoid bullying and teasing’ being two comments from teachers.

Because of the decline in student numbers, there were few opportunities for new staff to come to the school. This was seen to bring stability and the advantage of everyone knowing each other, but could be problematic in keeping out ‘new blood’.

Students were spoken of in positive terms as being friendly, nice and grateful for all that was done for them: ‘wonderful kids, very tolerant’. However, there was also recognition that the school was no longer attracting the ‘top’ students. A number of staff noted that the school was ‘the last chance for a lot of kids’ who had experienced problems elsewhere. The school was regarded as welcoming to such students, with a philosophy of inclusion and giving everyone a ‘fair go’. Teachers described the school as ‘egalitarian with a whole child focus’, ‘staff provide opportunities for all children’. The fact that students come from diverse backgrounds was seen as positive, as students interacted much more freely than in the past: ‘every one gets a go … high levels of participation … all students interact’.

The school’s emphasis on student welfare was also spoken of in positive terms: ‘because of the emphasis on welfare, students feel safe’; ‘a caring school, welfare oriented’, being two comments.

Although the ‘inside’ views of the school were generally positive, the common perception was that the school had a poor reputation. Despite improvements in school climate over time, the general opinion was that the standing of the school had continued to decline and that more affluent parents were sending their children to other schools. One teacher labelled this the ‘cringe factor’, whereby students don’t believe they are as good as those at other schools in the town, and community members see the school as at ‘the bottom’. The commonly held view was that ‘the school is not perceived well in the community’.

Description and Opinion of Community

In answer to the third interview question: *How would you describe the community the school serves? Are there any features of the school community that make it special or distinctive in some way?*, there were many comments to the effect that the community served by the school was predominantly low in socio-economic standing and disadvantaged in various ways such as high unemployment, itinerancy, illiteracy, family breakdown and social problems.

As one teacher noted, ‘the nuclear family is unusual’. There was agreement and concern that local ‘professional’ people were no longer sending their children to the school, and that most students came to school by bus from the poorer parts of town. Parental participation had dropped away and it was difficult to get parents involved in the school: ‘parents won’t approach the
school, feel uncomfortable coming to school’; ‘some parents are uncomfortable around the school, can’t read and write’. However, some committed parents were seen to be very involved: ‘a small group of dedicated mothers help at the school’. Some parents were regarded as ‘lacking in parenting skills’, although parents overall were ‘appreciative of the school’. Males were absent in many students’ families, according to those interviewed.

Some families were seen as ‘very needy’ and the school had acted to assist these by facilitating access to welfare agencies and other forms of assistance. The current Principal was seen as an important influence on the community welfare aspect of the school’s role.

Overall, the community was seen as poor and socially disadvantaged, with many students lacking home and parental support, yet the community and students were seen as grateful for what the school could provide for them.

Description of and Opinion of Students

As noted, students were regarded by those interviewed as coming from disadvantaged backgrounds in many cases. Teachers described the students as: ‘ordinary kids who respond to love like anyone else’; ‘nice, ordinary, not full of themselves, down to earth’; ‘good, average kids’; ‘pleasant, friendly’; ‘very open’, and ‘disadvantaged’. One teacher noted that ‘some have hard lives and have chips on their shoulders’.

It was noted that ‘there are special needs children in every class’, and that ‘most gifted students are lost to the G & T class … and they take their siblings with them’. On the other hand, it was also noted that when ‘special needs’ students come to the school they often bring their siblings with them.

Academically, there were comments about ‘losing the cream’, ‘don’t have top end students anymore’, ‘wide range of student academic, sporting ability’, ‘generally lower academic standard’, and ‘nothing special, full range of levels’. Again, it was noted that ‘the school takes on students rejected, not accepted elsewhere’.

There was general agreement that behaviour had improved over time, although several teachers disagreed: ‘behaviour problems are now more pronounced’; ‘kids more tribal, particularly girls’; ‘students were more positive in the past, wanted to learn’. However, most teachers noted improvement: ‘a few with behavioural issues [but] these have improved’; ‘boys less aggressive’; ‘behaviour improved since 2000, rough, rude then’: and finally the balanced view of ‘some good kids, some behaviour problems’.

The school was thought to cater well for its students, particularly in sport: ‘The school has a long sporting tradition, which dropped off … now rising’; ‘highly structured sport and skills programs’, and ‘the school caters well for kids’.

There was agreement that boys were more likely to take advantage of opportunities such as sport and computing than girls, a theme picked up in later questions.

Description and Opinion of Teaching Staff

Teachers at the school were commonly described as ‘very experienced’. As noted, teachers interviewed tended to have extensive country teaching
experience with around a half of their career time at the school. Comments about the teaching staff included: ‘diverse, oldish, experienced’; ‘incredibly experienced, don’t have a young teacher’; ‘very experienced, willing to learn new things, open to suggestions to help children’; ‘supportive of new ideas’; ‘willing to change’; ‘very helpful and supportive’; ‘most willing to adapt to new ideas, new ways of teaching’; ‘all fairly willing to do what’s best for the children’ and ‘harmonious staff due to forced transfers, like-minded, focus on children’.

However, not all comments about teaching staff were positive. A minority commented: ‘lot of old staff, been here a long time’; ‘some difficult teachers have led to stress’; ‘only a few who need to be dragged along’; ‘not togetherness, not a social staff’, and ‘staff find it difficult to work in teams, not much collaboration’.

Generally however, the view was that teaching staff are open, have a diversity of skills and are generally willing to share and work together. Again, the teaching staff is seen as more ‘together’ than in the past when the school was much larger. A number of female teachers commented upon the fact that the three male teachers had a strong sporting background which brought advantages to the school and that ‘staff involvement in co-curricular activities is a key aspect’ of the school.

Non-teachers interviewed tended to be highly complimentary of the teachers at the school: ‘Wonderful staff – I work in classrooms and see what they have to deal with. I’ve seen a struggle with the behaviour of some students. The behaviour is better’; ‘Excellent, they always have time to talk’; ‘staff work incredibly hard … very caring, work very hard for behaviour kids … have the utmost respect for staff’; and ‘very caring, very much in tune with the needs of students’.

School Change

The major aspect of school change noted was the reduction in student numbers, approximately by half, over the last decade. This was seen to have the advantages of fewer students, less crowding and engendering a more personal approach.

Those interviewed spoke of the revision of school behaviour and discipline policies to make these clearer, fairer and more effective. The contribution of the male Assistant Principal to the general improvement in behaviour and tone of the school was often noted: ‘discipline issues have declined, now more black and white, DP [assistant principal] a leader, staff and students respond well to his approach’; ‘new DP a major factor, vested interest, own kids at school’; ‘increased emphasis on school pride last 3-4 years, DP a major driving force, staff behind him’; ‘strong male role model [AP] who is fair with discipline and respected by kids made a difference’. The new playground and discipline systems were seen to be working well: ‘Behaviour used to affect everyone … put more people on playground duty, playground book, monitoring … kids more aware of direct consequences of actions’.

The contribution of the current Principal was noted as a factor in the general improvement at the school: ‘open door policy of the Principal’; ‘Principal very welfare oriented’. Her contribution to making the school discipline and
welfare policies more effective was also noted: for example ‘discussing playground behaviour at meetings’, and ‘negotiation with students over rules and responsibilities’.

Other changes mentioned by those interviewed included the greater role for sport in the school and how students, particularly boys, had responded to this. A greater emphasis on boys and their learning was mentioned as being a significant school change: ‘In the past it got to the stage where boys were not achieving … really focussed on boys’ education, sport … huge efforts with boys, tried to find ways for boys to excel’; ‘Because boys disengage more easily than girls, the school has made an effort to stop this’; ‘Efforts made by staff to get to know kids, working on self-esteem, trying to boost boys even when they get it wrong … got boys interested in books, it’s now okay to be interested’.

There was a general feeling that the school had become more integrated and a ‘K-6 school’. The previous segregation of the school into boys and girls and infants and primary had largely ceased and classes were now based on stages more than ages. The sexes had been integrated in things such as sport and, as a result, ‘students are working together’.

On a negative note, the school’s physical environment was seen to be declining, despite new carpet and air conditioning: ‘The buildings are old and falling down’. This contributed to the poor view the community had of the school when compared to new schools in the district.

**Student Achievement**

While there was some acknowledgement that boys’ academic achievement – as measured by BST – had improved over time and had ‘overtaken’ girls’ achievement, the fact that girls’ achievement had actually been declining appeared to take all those interviewed by surprise.

Further, while those interviewed were generally aware of the superior performance of boys in the school – after all, that was the stated focus of the research project – staff and others interviewed were largely at a loss to identify precise reasons for this. Given that the absolute decline of girls’ performance over the past decade was such a surprise, those interviewed could offer only tentative reasons for this phenomenon.

There was some appreciation that there were now ‘more boys in the school’, the implication being that for whatever reasons, some girls were not coming to the school. Other observations included: ‘boys appear to do better in infants’; and ‘the top [academically] groups are boy heavy’. Teachers commented that: ‘boys have inquiring minds’; ‘boys [at the school] seem brighter’; ‘boys have stronger social networks’, and ‘boys have more confidence at the BST [examinations]’.

A teacher commented that because there was: ‘No bright [girl] top, maybe boys are less threatened’. Another teacher said ‘We seem to have a group of boys at present who are better at thinking than girls’. On the other hand, a number of staff commented on how boys were more likely to be noticed and receive assistance, and thus they tended to dominate Reading Recovery groups: ‘Boys more noticed for intellectual ability, receive help’; ‘Boys underachieve early’, and ‘Reading Recovery started about 10 years ago … mainly boys’.
There were a number of comments that boys’ greater use, even domination, of the use of computers in the school outside regular lessons has positive effects on their literacy, general confidence and academic achievement: ‘Boys dominate free computer time’; ‘Boys use lunchtime computing more than girls’; ‘Boys like technology ... more technically minded, like science’; ‘... computers are maybe more a boy thing, spin-off is confidence’; ‘Boys use computers more, games, internet’, and ‘Boys’ skill level with computers has increased, helps their research skills’.

There was recognition that in the past four to five years, a conscious effort had been made to make learning more suited to boys’ needs and interests, and that these measures have borne fruit: ‘introduction of text types, more structure suits boys’; ‘maybe we cater more for boys now’; ‘boys have gained more confidence, more willing to ask for help’; ‘girls were given more positives in the past and boys negatives, now boys get more positives’; ‘more visual and hands on teaching [suits boys]’; ‘... cater more for boys’ interests, keeps boys on task and girls do what they are told’; ‘maybe boys more involved now, step up, have a go’; ‘staff gets boys’ [education] message at in-service’; ‘more explicit teaching may help boys’; ‘hands on, visual activities better for boys’.

A number of staff commented upon the decision ‘four to five years ago’ to obtain and use literature with more interest for boys and the fact that the library staff had purchased books ‘with male protagonists’. The ‘literature focus on boys’ interests’ was seen as increasing boys’ engagement with literacy: there was ‘... general awareness of boosting boys, particularly literacy’.

A factor in the improvement in boys’ academic performance frequently mentioned was the presence of ‘male role models’ in the school, particularly the Assistant Principal who was seen to ‘push sport’ which had appeal to boys. Representative comments included: ‘good male teachers serve as role models for boys’; ‘we have more male teachers than other schools, ... have a good influence on the boys, all males [teachers] heavily into sport’; ‘more men on staff, men all active in sport’; ‘more sport for boys [a factor]’; ‘boys get sports opportunities they wouldn’t get otherwise’; ‘boys pushed at sport more than girls’; and ‘extra-curricular uptake greater for boys’.

Keeping in mind the fact that staff were unaware of the absolute decline in girls’ BST performance, those interviewed offered the following explanations once the phenomenon had been pointed out to them. These centred on losing the ‘cream’ of the girls to other schools, a lack of home support, parental ‘pushing’ for girls, and girls’ relative lack of involvement and confidence. In terms of home background, examples of comments included: ‘girls have more serious home problems’, and ‘a lot of girls are desperate for someone to talk to due to working mothers’. On the issue of girls’ confidence, comments included: ‘girls less involved in debating because of lack of confidence, organisational skills’; ‘girls less adventurous in computer use’; ‘more independent work might militate against girls in later stages’, and ‘girls lack confidence’.

The supposed loss of girls at the end of Year 4 to the Gifted and Talented class at another local school was mentioned frequently: ‘more girls lost to G & T classes than boys’; ‘maybe girls more academically inclined to sit G & T test’; ‘girls higher performers in years 1, 2 ... then lost to G & T class along with
their siblings’. The result of the above was that there are now ‘more boys than girls at school’; ‘basically there are no top girls’, with ‘girls’ achievement stagnant, losing ground to boys’.

Other Issues

In the question asking for other issues, comments centred once again on: the poor reputation of the school in the community; the fact that the school takes students others reject or won’t accept; the welfare emphasis at the school, with the influence of the Principal being an important factor; the disadvantaged and transient nature of the community; the decline in parental involvement and the general improvement in the school over the past decade.

Lesson Observation Results

a) Background

There are a variety of programs at the school to support low achievers. One class has been devoted to students who have language delay. These students have intensive support during their early years at the school and eventually join mainstream classes. There were also two classes for students in the district who were categorised as having mild intellectual disabilities. These classes had been moved from a neglected area of the school to a situation that opened onto the central play area.

Reading Recovery (RR) had been introduced by the previous Principal about 10 years before the study. About 20 students were involved in three RR groups, and these were mostly boys. Three teachers were RR trained, but in 2004 only one of these was involved in the program. A current RR teacher reported that the standard was high; another teacher suggested that many of the students who participated in RR were part of the school’s transient population and moved on before they could benefit from follow up.

In numeracy, the Count Me In Too program had been introduced in the early grades. Although one teacher expressed her enthusiasm and claimed that the program was changing practice in the school, there was little overt evidence of the program in classrooms or in the lessons observed.

Sport was a major focus of the curriculum. The male assistant principal had been a PDHPE consultant, and he had provided leadership in this area, although the school had a long history of success in sport. The participation rates in sport had risen since the AP’s appointment, and several respondents commented on the active sporting program since his arrival. For example, in swimming, participation had risen from about 35 students to the whole school, and every Tuesday afternoon there was a sporting program in which a wide range of sports was offered. Groups in this program were gender and ability based, and rotated through all the sports, including soccer, Newcombe ball, basketball and hockey. Additional support for the sporting program was provided by two female parents, one in hockey and the other in basketball. A typical session consisted of some skills practice, followed by a short game. Dance was also offered and was seen as less competitive. A boys’ dance group had been created and had performed locally and within the school. Parents commented that sports were equally available to boys and girls, but one teacher felt that boys were better catered for than girls, giving the example that there was no netball played at the school. On the other hand, the AP reported that
when there were trials for a representative soccer team, 25 students, all boys, turned up.

b) Observations

Teaching practice was seen to be varied but every classroom observed had a strong emphasis on routines and structure in lessons. Teachers had good control of their students, and the experience of the staff was evident in the ways in which they managed potentially difficult situations, such as handing out equipment or organising groups. Classrooms were generally quiet and orderly, although students were not always on task. Some students observed did very little work, but they did not disrupt others’ learning.

Group work was more evident in the early years in both numeracy and literacy lessons. Some science lessons allowed students to work in pairs, but much of the teaching in the upper grades was aimed at the whole class. The emphasis in both literacy and numeracy lessons was on basic skill acquisition; there was little evidence of application of knowledge or problem solving. In contrast, science provided opportunities for exploration, and students seemed involved and interested with these lessons.

Students were also engaged with computing lessons in the computer lab, and in the library where computers were used as research tools in formal classes. Access to the computers for games sessions was available for the second part of lunchtime as well, and it was evident that these sessions were popular, with queues forming. A roster system allowed all students access to this informal use at some stage in the week, according to their year/grade.

Teaching was explicit and mainly teacher directed. Students were rarely expected to put their understanding into their own words, with follow up often being in the form of copying notes from the board or filling gaps on a worksheet. Numeracy lessons tended to focus on drill and practice of particular algorithms taught by the teacher. In one lesson, taught by a student teacher, obvious conceptual errors in subtraction were not recognised or dealt with by the teacher who sent a student back to ‘try again’. On other lessons, taught by more experienced teachers, errors were corrected but without an explanation of underlying concepts. In the primary grades, from Years 3 to 6, no concrete aids were apparent in mathematics apart from the use of a ruler as a number line.

Literacy classrooms were efficient, well structured and generally unremarkable. They did not show any significant bias towards boys except in frequency of questioning (occasionally). One teacher organised Guided Reading groups according to gender as well as ability, but this was not normal practice at the school. Classroom collections of books for specific teaching and for own-choice reading were always well balanced between fiction and factual texts, and contained fiction that would appeal to both male and female interests. All classrooms displayed careful attention to implementation of the English Syllabus in all three strands, and every room without exception strove to create a print-rich environment. As should be expected, writing lessons were focused on following the procedural rules of genre writing. Little creative writing was observed, although classroom work displayed indicated that this did form part of the curriculum, albeit within a tight framework. In Year 2, children were given specific literacy goals attached to their desks; examples
include: ‘I will read with expression’; ‘I will edit my work more carefully’. Literacy was taught as much as possible in small groups. It is interesting to note that lessons designed for low achievers and in the early years, however, were more conceptual in nature, both in literacy and numeracy. There was a focus on understanding and students responded to questions that probed this, rather than reproduction of the teacher’s words. Greater intellectual demands were also evident at times in the upper primary years, as would be expected.

There was, however, little evidence of student direction of lessons or of students controlling their learning. This situation was not altogether unexpected. Several of those interviewed, including parents, described the students as difficult to manage and having behaviour problems. Some students were on medication to control their behaviour. That the lessons ran as smoothly as they did, with few interruptions from student behaviour, is a tribute to the skill and experience of the staff. It was noticeable that in many of the lessons observed, students’ behaviour began to worsen towards the end of the lesson as they lost focus and concentration. Often lessons finished with some form of copying from the board which provided a relatively undemanding task for students to engage with and made behaviour management easier.

There were some differences in the way in which boys and girls engaged with classroom work, particularly when they were able to work freely. The girls tended to appear more compliant, engaging in the task as instructed. For example, in an early years’ literacy lesson, students were working in groups on a variety of tasks in a ‘round robin’, including one task where they were using cards to make sentences by combining a starting phrase with an ending. The girls used these to produce ‘sensible’ sentences, in which the start and finish were logically connected. One group of boys, however, used the cards creatively to produce ‘nonsense’ sentences, which they obviously found entertaining. This activity was unmonitored by the teacher, who was listening to students reading, apart from asking students to make less noise. In another example, a science lesson in which students were making electromagnets and using them to pick up drawing pins, the girls were interested in turning the magnet on and off, whereas the boys engaged in a competition to see who could pick up the most drawing pins at one time. When working on computers, when they were allowed free access, girls tended to use design programs that allowed them to create patterns and pictures in many colours, predominantly pinks, whereas the boys played computer games.

These differences were also evident in students’ displayed work. A ‘design a boat’ task had led to the boys creating fast warships, complete with guns portrayed in great detail with flames and bullets. The girls, on the other hand, had designed houseboats with pretty decorations. There was no evidence about whether teachers challenged these almost stereotypical behaviours, although there were comments about the ways in which the school had tried to refocus boys’ attitudes towards literacy in particular. Library staff, for example, had deliberately built up sets of readers that were more appealing to boys, with strong male protagonists. Many of the interviews included comments about boys’ changed behaviour over the years, away from physical aggression to more verbal forms.
Summary of findings

The overall context of the school has altered since the 1990s in the following ways:

- Loss of some ‘middle and top’ students from mid 90s due to:
  - shopping centre/school closure publicity, uncertainty,
  - opening of new school (non-government) in ‘better’ drawing area (drawing children of self-employed/professional),
  - new school (government) in mid-90s, with bus run from the above ‘better’ area,
  - perception that the school is run down, shrinking – drift to other schools;
- overall decline in school numbers of more than 40 percent;
- clientele now predominantly lower socio-economic, bussing from Housing Commission area, many single parent families, lacking males;
- general decline in female BST performance over approx 10 years;
- general improvement in male BST performance over approx 10 years;
- male performance ‘overtook’ female performance approx 5 years ago.

Thus, two phenomena were under investigation, and not just one as thought previously.

Possible Reasons for the Decline in Female BST Performance since mid-90s

a) loss of ‘middle-top’ female students;
b) ‘leakage’ of girls to G&T class after Year 4, possible loss of female siblings;
c) focus on boys’ education in school;
d) relationship with boys – ‘play up’ to get attention or ‘pull back’ and withdraw;
e) parental support for girls lacking in some cases;
f) declining reputation of school deterred some parents from enrolling their daughters;
g) lack of peer groups, especially for brighter girls as numbers declined, ‘quality’ and ‘critical mass’ lost;
h) use of more ‘structured’ teaching approaches geared to boys;
i) girls’ reluctance to take up opportunities, e.g., debating, sport, computing;
j) lack of focus/attention on girls’ needs, interests, discipline;
k) lack of females in the community who value girls’ academic achievement;
l) girls have more difficulty adjusting to itinerant status, loss of friends, peer group.

Possible Reasons for Improvement in Male Performance since mid-90s

a) the presence and influence of positive male teachers;
b) greater emphasis on clear, consistent application of welfare and discipline policies, tracking, follow up, improvement in discipline last four-five years;
c) smaller numbers have widened opportunities for boys’ involvement, made it harder not to be noticed;
d) focus on boys’ education, interests, texts, activities, structure of lessons, explicit teaching;
e) widened extra curricular opportunities for boys ‘spills’ over to academic engagement and achievement;
f) boys tend not to leave for the G&T class, preferring existing social networks at the school;
g) boys dominate computer use;
h) climate created where it is okay for boys to achieve;
i) higher parental expectations for boys;
j) boys’ academic difficulties noticed; boys more common in Reading Recovery, language classes;

Overall, classes and teaching are highly structured which suits boys’ learning. With the loss of many of the ‘middle-top’ students since the mid-90s, it would be predicted that both male and female performance in BST would fall. This has happened with female students (although possibly less than might be expected) but male performance has improved, possibly due to the factors/reasons outlined above.

Discussion of Findings

The findings indicated that two phenomena needed to be explained: a decline in girls’ performance and an improvement in boys’ performance, based on BST data. There are several potential explanations for these findings, based on the leadership, and the climate and environment of the school. Some factors are outside the direct control of the school, and might be attributed to unintended consequences of decisions about school rebuilding and de-zoning. Such factors include changes in the student profile and declining enrolments due to public perception of the long-term future of the school.

With the loss of many of the ‘middle-top’ students since the mid-90s, it would be predicted that both male and female performance in BST would fall. This has happened with female students (although possibly less than might be expected) but male performance has improved.

Overall, the school climate has been consciously oriented towards boys. This was evident in an initial interview with the Principal who spoke of her decision
to remove ‘girlie’ play artefacts in Kindergarten, in her conversation, which was nearly always focussed on boys (albeit she was talking in relation to the study); in the library’s commitment to providing a range of novels with male protagonists; and in the actual atmosphere of the school. This may help overcome the social construction of literacy as effeminate.

The study revealed good literacy teaching in the early years. Teaching was small-group oriented, tightly structured, and provided substantial remedial support. Teachers were highly trained and experienced. This provides a good foundation for success in later years. The school’s literacy teaching was solid and exemplary in the sense that it enacted the requirements of the English Syllabus to a high degree, particularly in the early years. In fact, nearly all of what was observed should be occurring in all primary schools in the state. The fact that the teaching of English through the functional approach (particularly the focus on structured text types) seems suited to boys, seems not to account for their improvement in performance because there should be a similar trend state-wide. Peppercorn teachers were not doing anything different or unusual; just doing what is expected and generally doing it well.

In numeracy, expectations appeared to focus on basic number skill acquisition, rather than the development of higher order thinking or application of the basic add, subtract, multiply and divide operations. It may have been the relatively restricted time frame within which lessons were observed, but there were no lessons seen where students were measuring, making shapes or collecting and manipulating data. The basic number skills were thoroughly taught, but the lack of group work or activity may play a part in the girls’ relatively poor performance. One of the most notable classes was the Stage 2 IM class, which comprised seven children. Here, sessions/lessons were kept reasonably short (about twenty minutes) but students managed to complete the required work, which was of genuine Stage 2 standard. The teacher used a combination of whole-group and individual work and provided concrete materials (MAB). Students were attentive and remained on task for the duration of the lesson.

Other mathematics classes seemed to focus on worksheets involving procedural tasks, where students were expected to use a given algorithm rather than being allowed to adopt their own techniques. No development of concepts was observed, but this is not to say that this didn’t happen at other times. Similarly, the work appeared to be performed in isolation from other KLAs and no connection to real-world situations was observed. When students made errors, they were encouraged to try again, but there seemed to be little attempt made to identify and remediate the particular errors that individual students made. Little use appeared to be made of concrete materials, even when these were available in the classroom.

Academic achievement appears secondary to student welfare in the priorities of the school. This was observed not only in the kinds of notices and displays in the school classrooms, but was also evident from the interviews where several respondents indicated that this was a school where students had opportunities to learn because their immediate needs were catered for through strong welfare programs. Safety, stability and citizenship appear to be the most important aspects of schooling at Peppercorn. It is possible that this alone, particularly
given the small numbers of the school, would help boys from disadvantaged backgrounds achieve some measure of success (especially stability). Peppercorn is a school of safety and caring that nurtures self-esteem, of both students and parents, and this creates an environment where learning can begin to flourish. Thus, student welfare is not so much superordinate to academic achievement as being a pre-condition for it to occur.

Despite the focus on student welfare, high expectations were a feature of the school. This emerged in interviews with staff, and in the classroom observations of literacy teaching using the Quality Teaching Framework Classroom Observation protocol. High expectations encompassed belief that the children could and would succeed at classroom tasks, and in their behaviour as citizens in the school.

A key question is whether the environment that has been created and which we think has facilitated the academic achievement of boys has somehow disadvantaged girls. It is not possible to fully answer this question, partly because there is some evidence that the ‘top’ band of girls has gone elsewhere.

It can be said, however, that the girls at Peppercorn do tend to lack confidence and ‘hang’ back in comparison with boys at the school. Part of the reason for this may lie in the fact that boys have obviously been the focus of the school’s efforts in recent years. This decision was understandable and was driven by a number of severe behavioural problems in the school. However, it is possible that this has had some negative impact on the girls. In several observations, the girls were found to be very compliant in that they did not create many disciplinary problems in the classroom. However, this did not necessarily mean that they were engaged in the work. One possible reason for disengagement may have been that the work was neither interesting nor relevant to them.

As noted, there appears to be a sound literacy and numeracy foundation in the early years. A challenge for the school is to build upon this with deeper learning in Stages 2 and 3. Improved behaviour and more compliant students provide the opportunity for staff to engage in teaching practices leading to deeper learning moving beyond the highly structured approaches presently evident. It may well be that increased attention to pedagogy and deeper learning approaches, possibly through the framework of NSW DET’s current Quality Teaching model (2003), could lead to a situation where the learning needs of girls are better catered for.

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