

Gender Inclusive Practices within the Primary Classroom

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Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

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(17/6/2010)

Summary

Gender continues to present as an influential component within education. Many research projects have investigated the influence of gender on learning and teaching. The intention of this project is investigate how one Australian primary school teacher integrates and manages gender within their classroom. The project draws upon the findings of other Australian and international research projects and inquiries that have investigated gender, to inform the design of teaching practices that in this project, become the focus for observation and data collection in the participant teacher's classroom.

The research project is a collaborative, action inquiry, case study that investigates the gendered and inclusive practices of a teacher, exploring gendered language and behaviour that is (or not) utilised within their teaching. The researcher and the participant teacher plan, conduct, observe, reflect and discuss the role of gender in the learning and teaching practices in a grade 3/4 classroom. By asking questions such as: 'what is a primary teacher's understanding of gender inclusive practices?' and 'how does a teacher's awareness of gendered teaching, learning and behaviour influence their teaching approach?' the project investigates gender as a determining factor in teacher behaviour and in children's learning. The project focuses upon:

- Teacher reflections on teaching and learning practices in working towards a gender inclusive classroom.
- Student interpretations and reactions to a teacher's gender inclusive teaching practices within the classroom.

These questions are investigated through observations (both participant and non-participant, including descriptive and numerical data), interviews (with both the teacher and students) and a literature analysis to make connections between other research outcomes and the outcomes of this case study.

The project was conducted in a Primary School situated in the north-western suburbs of Melbourne that is a participant school in the Australian Government's *Educating Boys* program. The participant teacher in the project is a female teacher in her 30s who has taught her entire teaching career at Maple Leaf Primary School. The teacher, Jane, was

eager to participate in this collaborative, action inquiry research project. The Grade 3/4 class contains a mostly Anglo-Australian cohort of children between the ages of 8 and 10 years.

The project recognises and utilises the importance of the role a teacher plays in influencing students' understandings of gender through, the learning environments they create, how they interact with their students, the learning styles they incorporate into their teaching, and how they recognise cognitive differences in each child. All of these influencing factors are saturated with gender and this can be varied by decisions made by the teacher. Gender is intertwined into most of what teachers do.

The project began with a series of observations in the participant teacher's classroom to record teaching style and gendered behaviours shown by the students and the teacher prior to the commencement of the collaborative action inquiry. The data collected at this time informed initial decisions about the focus of lessons for the action inquiry investigation. The data also served for comparison with later data and for the teacher and researcher reflections on teaching and learning.

The project incorporated a series of focus lessons created collaboratively by the researcher and participant teacher. The focus lessons involved previously planned activities in the teacher's curriculum but introduced variations that utilised single-sex groupings, humour, and kinaesthetic or linguistic learning styles. Four focus lessons concentrated on reported preferred learning styles of females and a second set of four lessons concentrated on reported preferred learning styles of males. Another eight focus lessons concentrated on inclusive practices that incorporated all students' needs and abilities into the curriculum with the intention of removing any gender bias, stereotypical behaviour, language or activity.

In addition to detailed observations, reflection and analysis as part of action inquiry cycles throughout the single-sex and mixed-gender focused lessons, the project interviews between the researcher and the participant teacher and between the researcher and a sample of students from the class. Student interviews were conducted in order to obtain children's understandings and perceptions of gender and its role in their learning and in their teacher's behaviour. The teacher interviews were conducted to uncover knowledge,

experiences, understanding and intentions in relation to gender and inclusive practice. Three teacher interviews occurred at specific times throughout the research to formalise the comparison of reflections and interpretations about the role played by gender in the teaching of the children in the participant teacher's classroom.

The findings from this project confirm that teachers can refine teaching practices in ways that impact on gendered learning behaviours and outcomes in primary school classrooms. The project demonstrates that teachers have the ability to form and alter children's opinions and perceptions of gender. It recommends that teachers model and provide an environment that is free of stereotypes or bias. While gender may be dealt with in a variety of ways, the findings provide evidence that suggest an inclusive approach is possible and effective.

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Abbreviations

AAUW	American Association of University Women Education Foundation
AIMS	Achievement Improvement Monitors
ASX200	Australian Stock Exchange (top 200 companies)
CEO	Chief Executive Officer
DE&T	NSW Department of Education and Training
DEEWR	Department of Education, Employment and Workplace Relations
ICT	Information, Communication and Technology
LOTE	Languages of than English
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
MI	Multiple Intelligence
NAPLAN	National Assessment Program – Literacy and Numeracy
NASSPE	National Association for Single-Sex Public Education
RMIT	Royal Melbourne Institute of Technology
SACSA	New South Australian Curriculum, Standards and Accountability Framework
TLP Project	Teacher Professional Leave Project
UNESCO	United Nations Education, Scientific and Cultural Organisation
UNGEI	United Nations Girls' Education Initiative
UK	United Kingdom
Vs	Versus

Chapter One

Introduction

1.1 Project description

The modern day teacher is being confronted by an ever growing ‘crowded curriculum,’ but with the amount of professional development and school strategic plans, we teachers are also gaining a ‘crowded pedagogy.’ Of course this is occurring with the best of intentions, but what do teachers need to focus on? What will be of greater benefit to our students? Each teacher will answer these questions differently depending on their own learning experiences, passions and beliefs. My passion within teaching resides in gender issues, not only because of my feminist stance, but because after attending countless professional development sessions, reading about male orientated learning approaches, female orientated learning approaches and all their benefits I have concluded that the most sensible approach is an inclusive one.

Therefore, this project aims to persuade readers to identify the benefits in an inclusive approach to teaching and developing an inclusive school culture. Although an inclusive practise involves the inclusion of all regardless of race, ethnicity, religion or gender; gender is the focus of this project because my teaching experiences have lead me to develop a curiosity for gender and its associated issues within the classroom. Each individual develops a gendered identity through his or her engagement with gender practices in all aspects of their lives. This occurs at school, while interacting with family and the wider socio-cultural context both locally and through popular culture. All of which has allowed me to see how these issues are deeply entrenched into our profession. As how a teacher understands, approaches and manages gender issues within their classroom will influence students’ readings and performances of gender. As such, the construction of gender relations and gendered identities are integral to the learning and interaction that takes place in classroom environments. For instance, students are exposed to their teacher’s and peer’s performances of gender through language, behaviour and the organisation of classroom practices.

Therefore, this collaborative, action research, case study explored the gendered practices of a teacher exploring her gendered language and behaviour. The project takes place in a 3/4 classroom within a Government school in the north-western suburbs of Melbourne. The school has data that has presented skewed results between genders and had been accepted into an 'educating boy' program to rectify this issue. This program provided the school with a significant amount of money to pay for professional development and resources, in order to improve boys learning, more specifically their writing skills.

By observing small and whole class learning experiences, I was able to identify how the teacher is addressing gendered teaching, learning and behaviour within the classroom. The teacher and I planned gender inclusive experiences, drawing comparisons between mixed gendered and single sex groupings, I then observed the teacher implementing these sessions, comparing our planned activities with those prior to discussions on gender and its influences. This was followed by an analysis of the outcomes and behaviour of both the teacher and students depending upon the learning environment. Interviews with the teacher explored her teaching pedagogy, her intentions for the planned learning experiences and the types of approaches the teacher is already integrating into her teaching program in order to address gender issues in the classroom. The interviews with the children uncovered the children's perceptions of gendered learning and their expectations of the classroom environment and the school culture. All statistically data drawn from observations have been compiled into graphs which will be reviewed and discussed in later chapters.

I realise that this project analyses only one teacher, in one school, in one classroom. Yet the project does showcase an in-depth analysis of the teacher's practice and attitudes towards the learning environment and students. The research invites a flow of new ideas and awareness of gender inclusive practices to be integrated into the curriculum. I feel that it will provide the studied teacher a deeper insight into her teaching and shows how effective simple reflective research techniques. As I feel that I clearly modelled how to utilise reflective tools and illustrated convenient classroom-based methods to analyse gender inclusive practices (which could be applied to other areas of research.)

I believe that this project has produced some interesting outcomes and has fulfilled many of my initial intentions. I wanted the project to promote discussion and an awareness of

gender inclusive practices in hopes that it would be integrated into the everyday curriculum. I believe that I have accomplished this. Teachers' are given such little time to delve deeply into their teaching practices and with only the first interview I was able to I draw her attention to her preferred teaching styles, her history, opinions and how they influence gender issues within the classroom. We spoke at great lengths of how the projects processes could be simplified to be used in the broader school community. I know that I have altered this teacher's perceptions of gender and therefore I am proud of what I have achieved. I have uncovered a 'hand full' of children's understanding of gender and how they feel it's influencing them, which provided a powerful insight into children's thought processes. This project is practical and revealing, and I hope that reader's feel that they can apply these processes and reflections to their own teaching.

1.2 Research question

What is a primary school teacher's understanding of gender inclusive practices?

- How does a teacher's awareness of gendered teaching, learning and behaviour influence their teaching approach?
- How does a teacher reflect on teaching and learning practices in working towards a gender inclusive classroom?
- How are students interpreting their teacher's gender inclusive teaching practices within their learning environment?

1.3 Project aims

This research project aims to investigate gender inclusion within a specific classroom environment, uncovering the teacher's understanding of the role of gender within a primary classroom. The research will also record one teacher's awareness of gender and how they incorporate gender into their teaching and learning experiences, observing classroom events and interactions for evidence of gendered learning and behaviour. The project will then;

- Support the teacher in observing, reflecting and acting upon gendered teaching practices and gendered learning and behaviour in the classroom
- Record a process of action inquiry by one teacher towards a gender inclusive classroom.
- Record and interpret the student's understandings of gender related issues with their learning environment.
- Drawing attention to a largely overlooked area of the classroom yet is embedded into so much of what we teachers do.

Ultimately the project is aimed at improving the practices of not only the teacher I observed, but my own teaching and those that I will one day influence.

Chapter Two

Background and Significance

2.1 Context for the research project

In this chapter I will outline the social and educational context for my research project about gendered and gender inclusive teaching and learning practices in the primary school classroom. This background will provide an insight into both my personal motivation for undertaking this project as well as a demonstration of why researching gendered and gender inclusive teaching and learning is significant and important at this time for teachers, policy makers and education scholars.

Being a teacher is extremely fulfilling in my life, yet with growing experience it is difficult not to want to evolve and improve my own teaching and the knowledge base of the profession. Education departments, teachers and academics all try to make positive changes to the profession through leadership approaches, curriculum change, new teaching practices, improved classroom management, modified assessment and reporting and so on. It is easy to notice that a significant amount of research conducted within the education sector in recent times, through seemingly countless practitioner and scholarly projects, has been focused on gender issues (Dillabough, McLeod & Mills, 2009; Nayak & Kehily, 2008; Keddie & Mills, 2007; Skelton & Francis, 2005; Skelton, 2001). The breadth of this research does mean that, as O'Brien (1984) observed, the topic of gender is "inevitably accompanied by a list of other social divisions (gender-comma-race-comma-class), rather than a prioritised or dealt with in its own right" (cited in Skelton & Francis, 2005, p.26). This sometimes complicates the direction the research takes and means that findings are less about gender than about other things. This project is one that is focusing primarily upon gender and it will question and hopefully enhance gender as a focus in the teacher participants' instruction and their students' learning. Ultimately, I am hopeful that this research will influence not only me and my teacher participant, but also how others approach this issue within their classrooms.

But why gender? And, why gender now? To some, it may appear that this topic has had its day and that it is linked to a women's movement that is no longer relevant. However, we must keep 'troubling gender' by opening up for critical reflection stalemates and sticking points in research trends on gender and education (Dillabough, McLeod & Mills, 2009). From some we hear that women can be in any profession they wish, and the 'glass ceiling' no longer exists with the sexes operating on a level playing field (Knight, 2010). Yet, the most basic investigation reveals that a gender gap still exists within societies both locally and globally (Arnot, David, & Weiner, 1999). Else and Bishop (2003), argue that stereotypes and power relations linked to them continue to influence the careers, salaries and life choices of women. In our "university campuses, there are 6 female students for every 5 male students, and the labour market is steadily feminising with women now comprising 45 percent of all workers. At the upper echelons of Australian business, men still tend to occupy the 'corner office'. Women comprise just 8 percent of the Australian Stock Exchange top 200 companies (ASX200) board directors and 2 percent of Chief Executive Officer's (CEO)" (Leigh, 2010, n.p.). In all sorts of work, females have been producing equal or superior outcomes for years, but this does not often transfer into leadership positions and high paying jobs. Researchers argue over the causes and the reasons. Some state that it is a discrepancy that is diminishing gradually over time, others say that it is due to entrenched social structures, learned life experiences, or motivation and innate drive or lack thereof. Irrespective of the arguments, gender is a difference factor that leads to unequal outcomes and children and young people learn this inequity from an early age. Studies have researched the effect of gender issues by identifying how we learn gender, as "gender gets 'done' through every day practices, such as in friendship groups, classroom interactions, and play" (Jackson, 2007, p.2). This is an important observation because it points to teachers' abilities to shape generations of children. As teachers, we can make a difference. While we cannot control what students watch at home, their family values, the dynamics they share with significant others such as in friendship groups, or all of their learned behaviours, we can control how gender issues are addressed within classrooms and within the school community.

According to the South Australian Curriculum, Standards and Accountability (SACSA) Framework (2009), "every day attitudes and beliefs about gender are brought to the classroom and influence what is taught and how it is taught. Nothing is neutral. Teachers take part, with students, in constructing gender in daily interactions and relationships". As

I have become more experienced as a teacher, I have realised the truth in this statement, as gender is entangled into all that teachers do. We only need to ask questions such as the following to see the pervasive influence of gender in our work in classrooms and staffrooms. Are the books we read gendered or inclusive? Are units of work gendered or inclusive? Is how we teach gendered or inclusive? Are our interactions with students gendered or inclusive? Do our schools see these issues as important and worth monitoring and acting upon?

National testing is used to highlight gender differences in academic performance between boys and girls. For example, the National Assessment Program; Literacy and Numeracy (NAPLAN), has produced data that has found that females produce better outcomes in all areas of assessment (across all assessed year levels) other than in mathematics, “where the boys performed better overall at all year levels, other than in year nine where there were a number of items where girls performed better” (MCEETYA, 2008, p.23). These results are supported by an Early Childhood Longitudinal Study conducted by Freeman (2004) that found upon entering kindergarten, females and males attained similarly on tests in general knowledge, reading and mathematics. Yet by age 9 boys were receiving higher mathematics scores and lower reading scores, while girls were receiving lower science results. In the school community (Maple Leaf Primary) investigated in this research project, data from the last three testing periods revealed that the school’s male students were lacking in writing skills and an increasing amount of girls were at risk in regards to maths. More specifically, the tests found that at the end of 2005:

- 74% of the male students were performing below consolidation level at reading.
- 88% of the male students were performing below consolidation level in writing
- 81% of boys were performing below level in speaking and listening.

Other studies produce similar outcomes, across different settings, and educators are urged to do something to even up the playing field. Public opinion and policy imperatives stress that is be addressed throughout education to establish a level playing field in learning outcomes and with access to further education and the workforce. By way of example, the school in this project took this gender skewed performance data so seriously that, to prevent this from occurring again, applied for and gained access to a federal government initiative to improve boys’ education and ‘success for boys’ (Department of Education,

Employment and Workplace Relations, 2010a). Upon joining this program all teaching staff began attending lectures specifically related to educating boys and altering curriculum aims to incorporate more physical and technology based learning experiences. A focus on teaching literacy skills to ensure there was a concentration on boys' skill levels also developed. What does this mean for the school and the other half of its student population? A decision to alter the schools strategic plan to focus upon the school's male students may be perceived as gender biased. Since its inception, the 'success for boys' program has been rather controversial and many principals and teachers have views about this program, with concerns that the government has spent 19.2 million dollars on a program that has showed very little in the way of promised results. In the school at the centre of this project, the literacy scores amongst boys are still considerably lower than that of girls, and it seems that this program was not a success.

The background to this push for boys' education is reflected in ideas presented in books by Steve Biddulph, a renowned advocate for male education, who in his lecture at the project school reiterated claims on how the school system is failing male students. His belief was that "...boys are doing badly – not just compared to girls, but to themselves; to what we know they could do if they tried, or got the right kind of help. By present trends, sometime around the middle of this century there will be no boys at all in universities anywhere' (Biddulph, 2002, p.126). He argues that schools need to reform their pedagogies by increasing the amount of male teachers at all levels, training male teachers in mentoring, changing the role of male principals (even though he does acknowledge that most principals are male,) and integrate more 'boyish' modes of learning. Yet this school already had a significant number of male teaching staff (7) - which has currently increased to 9 - the majority of whom are already in leadership positions. This school has what Biddulph claimed is required, but it has not brought about the promised increase in male learning. Throughout this pedagogy overhaul teachers have been told that 'what is good for the boys will also be good for girls', but is this how to frame the problem? While supporters of the view above may state that male and females learn differently, the results do not always provide evidence for that position and perhaps educators should not be adopting a style of teaching that better suits boys over girls, or vice versa, but rather adopt an inclusive or gender neutral approach to teaching and learning.

There are already enough potential gender biases within a school's structure and its strategic plan, without the biases may arise within the classroom from decisions of the teacher. It is essential to have a sense of where gender issues may be located in schools and classrooms, as is suggested by the following remark: "first it is important to be knowledgeable about where gender differences actually exist. This avoids the problem of making inaccurate generalisations or assumptions about our students" (Cassidy, 2006, cited in Sadker & Silber, 2007, p.35). The following factors are those identified as the most important and most influential within the classroom, however there will be times they will occur without our knowledge.

2.2 The learning environment

Some researchers have said that school is better suited to a female style of learning (Collins, Kenway & McLeod, 2000). This is usually argued from a medical/cognitive science stance (Caplan, Crawford, Hyde, & Richardson, 1997). Connell & Gunzelmann (2004) claim that:

Most school curricula emphasize the left-brain cognitive skills of speaking, reading, and writing abilities, which usually develop at a slower rate in boys. Starting at the kindergarten and first-grade levels, boys are expected to perform to a standard that favours the girls. They are expected to sit still, speak articulately, write the alphabet legibly, work in groups, colour between the lines, and be neat and organized.

http://teacher.scholastic.com/products/instructor/Mar04_gendergap.htm

Other researchers agree with this position, that boys are disadvantaged at school from an early age by teaching approaches that are not 'in tune with' boys' (preferred) ways of learning (Bleach, 1998). There are schools that do employ the traditional teaching methods described by Connell and Gunzelmann (2004) and others that do occasionally require all students to conform to particular learning regimes. It would be difficult to dispute that. However, educational systems in Australia have a history of innovation in curriculum and pedagogy that move teaching and learning away from tradition - such as New Basics and

Productive Pedagogies in recent times (Hayes, Mills, Christie, & Lingard, 2006). Through these and other innovations, we see encouragement for schools to adopt thinking tools and the multiple intelligences, basing integrated units on interest, and literacy and numeracy teaching upon need (Wilks, 2005). It is rarely as simple as the cognitive science view on learning styles described above.

The learning environments argument is sometimes bound up with use of information and communication technologies. A majority of Australian school children are surrounded by video games, ipods, mobile phones, and fast moving entertainment via TV and movies. The education system itself is becoming enriched with media and technology, and it is recognised that regardless of gender children in modern society are technologically savvy (Kelly, Pomerantz & Currie, 2006; Beavis & Charles, 2005) and that education needs to coordinate its learning practices to those that children employ in their wider (technological) lives as learners. Although researchers like Lingard and Douglas (1999) rightly claim that “too often primary school boys seem to be constrained by an environment that is alien to their socialisation at home, in the media and the culture of the communities in which they live” (cited in Wills, 2007, p.132) both require a learning environment that incorporates technology and media. A survey conducted by DeBell and Chapman (2006) found that while “the rate of overall computer and internet use for boys and girls are about the same” (p.131) there were significant differences in the manner in which they utilised the technologies. They found that more girls use ICT for ‘clearly defined’ school work and more boys used the technology for games-related activities, though these generalisations can be fraught as there are always variations between other categories across the boundary of gender (Beavis & Charles, 2005). For instance, socio-economic difference impacts on how children take up formal and informal learning with technology. Schools and school systems are working hard to ameliorate the difference between those who have access to these technologies at home and those who do not by reducing the ratio of children per computer (DEEWR, 2010b).

However there are a variety of gender issues and differences that persist and influence our classroom environment even after controlling class size, gender ratio, or age group factors (Statham, Richardson & Cook, 1991). Therefore it is to other dimensions and dynamics that we must look to respond to persistent issues and “it may make more sense to teach in a more inclusive manner, using multiple and varied approaches” (Sadker & Silber, 2007,

p.52) to address them effectively. For instance, Kenway and Willis (2007) believe that the “abilities of girls derive from their socialisation rather than a natural aptitude. Indeed, it may be the validation of their behaviour which particularly encourages girls to strive for neatness, tidiness, even prettiness; getting it right is what counts in the controlled space of the home and the classroom” (Wills, 2007, p.132). While it is clear that there are items within and beyond a teacher’s control, what and how we teach are largely within the teacher’s decision making ambit. Ultimately, it is this that this research project focuses upon, namely; a teacher’s planning, content delivery, behaviour and reflections (on these) rather than that going on around the teacher that is outside of their control.

2.3 Learning styles

Learning styles are defined “as an individual’s characteristic or preferred way of receiving, processing and responding to information in a learning situation. Learning style is an indicator of preference and ease in a particular manner of learning” (Cassidy, 2007 p.39 cited in Sadker & Silber, 2007). Learning styles are a heavily debated and there are numerous theories on the various learning types. One example is Smith and Kolb (1986) who developed ‘Kolb’s learning styles’. These separate people on the basis of how they perceive and process new information, resulting in four major, named, learning styles: accommodator, converger, diverger, and assimilator. In a well known study, Belenky, Clinchy, Goldberger and Tarule (1986) examined women’s ways of knowing or modes of thought, and categorised these as rational, intuitive, objective or consciously subjective. Despite the debates, to me, these theories are more like a MI test, that show the individual what and how best they learn.

Inevitably, there has been significant research into how each gender prefers to learn, identifying and naming preferred learning styles for boys and girls. Although, “research has questioned the validity of notions of discrete learning styles, and studies have also failed to find conclusive links between gender and learning styles... learning practices and preferences may be gendered (for example, girls enjoying group work etc), such preferences may be due to social norms, suggesting a role for teachers in broadening (rather than narrowing) learning approaches” (Younger et al., 2005, cited in Department of Children, Schools and Families UK, 2009, p.4).

Other researchers feel that the assessment of learning style is similar to fortune telling, as the statements are often “designed to sound predictive enough so that they could apply to a number of situations” (Stahl, 1999). However, the notion of definitive gendered learning styles has been reinforced by studies that have claimed to demonstrate stark differences between male and female preferred methods of learning. For example, a study conducted by Philbin, Meier, Huffman, and Boverie from the University of New Mexico found that “if males are thinking and watching, they learn best” (1995, p.491) whereas for girls they found feeling went with thinking and watching. Other research also shows that boys need action, competition, break times, ICT based learning experiences, male role models and hands-on materials (West, 2001; Ashley, 2003). Some research studies suggest that males prefer a high level of competition (Leigh, 2010). However, there are many different opinions. For example, the Great Britain Department of Children, Schools and Families consider that a competitive learning environment “may actively disengage those boys who do not immediately succeed” (2009, p.5). This department also asserts that boys do not require male role models within their learning environment because “for the majority of boys and girls, the teacher’s gender has no bearing on their preferences for a teacher” (2009, p.5).

As can be seen from the above, there is considerable attention given to learning styles of boys in response to the so-called ‘crisis’ in boys’ education. There are many who make contributions to this debate, from that stance, found in academic, welfare and interest group circles. For example Peter West, head researcher on Men and Families at the University of Western Sydney, states that males require their teachers to include the following learning techniques into their education:

- Less communication (as males are generally not as effective listeners, and therefore would prefer words/instruction to be at a minimum.)
- Activity (more males are focused on action and require a certain level of activity during any given lesson.)
- Humour (using humour helps to keep boys engaged and interested)
- Challenge (many males state that they feel school is not challenging)
- Focus on writing (males can require a more directed writing programs, writing tasks based upon their interest and teachers to explicitly model writing)

(West, 2001)

My own experience as a teacher leads me to assess these recommendations as possibly producing effective outcomes and creating levels of engagement within the classroom for boys (and also for girls). For me, lessons that contain even a small component of action, humour or contest ensure that the information is reinforced in a memorable and meaningful manner that is enjoyed by my students.

Research into female preferred learning styles appears to be just as contradictory. Some research has found that females are also not suited to a traditional style of learning. Philbin et al. (1995) state that “females learn better in hands-on and practical settings, emphasizing the realm of the affective and doing... [that is when] females are watching and feeling or doing and thinking, they learn best” (p.7). Other research conducted by Campbell (1999) states that “learning styles may be influenced by gender... [while] men tend to be autonomous or independent learners... the majority of women, on the other hand, tend to learn in a relational, connected, or interdependent way. Inclusive design practices acknowledge and accommodate these different approaches to learning” (cited in Dyjur, 2004, p. 3). Other research studies claim that females are verbal learners with superior oral skills and creativity. Yet how we approach and nurture these styles can deeply affect a child’s perception of gender, expectations of learning and their level of motivation.

This leaves us standing in a confused terrain of claim and counter claim about the nature of boys’ education and whether the resulting issues are unique to boys or simply a reflection of the diversity in learners and thus fully encompassing of boys and girls as learners.

2.4 Cognitive differences and gendered learning

Developments in cognitive science and their application to education, including theories of learning and teaching, have led to positions such as the following that argue “the advantage for teachers of an approach that thinks of gender differences in terms of cognitive processes is that it may enable teachers to better understand where and why

girls and boys may struggle with or excel at particular tasks” (Cassidy, cited in Sadker & Silber, 2007, p.39).

Indeed, there is evidence which shows gender differences in relation to cognitive abilities and there are informed views on how teachers should approach and create effective learning environments and appropriate teaching practices. For example, we have learnt that the female brain contains larger elements (i.e. corpus collosum) than in a male brain, and these components are related to the nerve fibres which transfer information from one side of the brain to the other. From this it is concluded that females and males will process information variably in time and accuracy because “females have more involvement of both halves of the brain when performing cognitive tasks, compared with males” (Cassidy cited in Sadker & Silber, 2007, p.39). Therefore, the argument goes, how males and females prefer to, or automatically, process information will be significantly different and this will impact on learning. For example, educational assertions are then made, such as the following:

- Deductive and Inductive Reasoning: Boys tend to use deductive reasoning, while girls prefer inductive thinking.
- Abstract and Concrete Reasoning: Males are drawn towards abstract arguments; females tend to be better at concrete analysis.
- Use of Language: On average, females write, read, and speak more words than males.
- Logic and Evidence: Because girls are inclined to be better listeners, they feel more confident in conversation. Boys will often ask for more evidence to support a claim.
- Use of Symbolism: Boys are more reliant on pictures, diagrams and graphs in their learning process. (Gurian & Ballew, 2003, pp.17-24).

Yet other studies reiterate and apply to education the differences between male and female cognitive abilities. Kimura (1999) states that “females tend to have their cognitive functions more focally organised (contained in one small area of a hemisphere), whereas men have their cognitive functions more diffusely organised (spread more throughout a given hemisphere” (cited in Sadker & Silber, 2007, pp.39-40). This view on cognitive differences account for research such as that conducted by Salomone which asserted that

“an average male is already developmentally two years behind females in reading and writing when he enters the first days of school... [and that] by grade four, girls score higher nationally on reading tests than do males” (Salomone, 2003, cited in Ferrara, 2005, p.3).

Perhaps not surprisingly, in the United States, the group known as the National Association for Single Sex Public Education has utilised these findings about cognitive differences within a research project finding that “a 7-year-old girl and a 7-year-old boy differ, on average, on parameters such as "How long can you sit still, be quiet, and pay attention?" Those differences between a same-age girl and same-age boy are larger than differences between, say, a 7-year-old girl and a 9-year-old girl” (NASSPE, 2010, para 1). Their conclusion is that teachers cannot expect the same results from female and male students when gender is influencing even the most basic cognitive skills such as memory, verbal ability, visual-spatial abilities and ability to hear.

However, what this kind of research does not take into account, and what possibly many teachers know from experience, is that each child irrespective of their gender will demonstrate these differences in varying quantities. Ultimately, while this information demonstrates the need for teachers to pay attention to, and to address, gender in the classroom, it also means that while ‘these discoveries of brain differences are exciting and important, they should not be used as a justification for avoiding equity issues in the classroom’ (Sadker & Silber, 2007, p.40).

2.5 Teacher gender and teaching styles

The ratio of men and women within the teaching profession has changed over time. In a study completed by the Australian Bureau of Statistics it discovered that between 1982 and 2002 the ratio of female to male teachers within primary schools increased from 2.4 females to every one male in 1982, compared to 3.8 females to every one male in 2002. Although, “the gender balance was more equal at the secondary school level” (Australian Bureau of Statistics, 2003, Who teaches? Para 10), overall the teaching profession predominantly consists of females. Consequently, a question arises as to whether teacher gender influences students, simply because of a gendered difference in teaching styles?

Also, will gendered teaching impact upon a child's perception on gender, as teachers present gendered identities in differing ways in working with students? These are interesting questions and, although beyond the scope of this project, they have been investigated by others in the context of teachers' work, teacher education, and teacher identities (Kenway et al., 1997; Skelton, 2001; Skelton & Francis, 2005; Paechter, 2006). Such questions have become prominent in recent times with the focus on boys' education that has arisen from research and polemics about the feminisation of education and its purported influence on the outcomes of learning (Martino, 2003; Francis, 2006; Keddie, 2007; Mills, 2007).

Conclusions such as: "understanding how and why men and women teach differently is critical to assisting faculty in their efforts to improve their teaching" (Laird, 2007, p. 3), lead teachers to want to know if their teaching (style) is influenced by their gender (and gendered identity). Typically, research findings will provide evidence and support to the idea that there are observable differences in how men and women teach and it is this that is picked up by teachers, schools and school systems. By way of example, a study by Basow, cited by Laird (2007), found that "students perceived female instructors to be more sensitive and considerate of student's ideas whereas male instructors were believed to be more knowledgeable" (p.3). Other research found that "male teachers tend to run their classes in ways that match the learning and behaviour styles of boys, while female teachers employ a style that is more likely to suit the needs of girls" (Grossman, 2004, p.225). The research indicates that female teachers are more likely to utilise motivational tools, be less critical, invest more time in planning and assessment, encourage more often, lecture less and promote higher order thinking. While male teachers are said to be more hands-on, more likely to use humour and be more disciplinarian. A 1997 article published in *Education Today* reflected these ideas, stating that:

Male teachers are assertive and dominant figures, while their female counterparts are of the nurturing type.

<http://www.britannica.com/bps/additionalcontent/18/22836345/Teacher-Bias-of-Gender-in-the-Elementary-Classroom>

Although these statements lead to broad generalised views, and need to be recognised as such, they do resonate with teachers and their perceptions of themselves and others. For

instance, upon observing the teaching styles of the few male primary teachers at my own school, it is difficult not to notice differences in approach adopted by these teachers in working with children and in specific teaching techniques they demonstrate (and embrace). Therefore, it is relatively easy to conclude that men and women teach differently and that children will get different experiences because of the style of teaching that comes with the proclivities (described above) associated with the gender of their teacher. This is too simple, and herein is the challenge for all teachers: to understand what makes a difference and in developing, adopting and implementing teaching practices that recognise and respond to the role of gender without being contained and controlled by narrow, generalised and simplistic views.

The challenge is to recognise teacher gender as a factor, and to include research about practice such as that noted above, in building knowledge about inclusive teaching and learning. How can we create an inclusive environment with so many influencing factors? Yet acknowledging and learning about the complexity is the first step to creating an inclusive classroom, as we prepare ourselves in catering for each individual child.

2.6 Gender inclusion and gender equity: a personal view

Although investigating and building an inclusive approach is this project's primary focus, gender equity is constantly the centre of attention for me as teacher and researcher. I operate from a belief that:

...gender equity in teaching is a central component of a good-quality education... Children will want to come to school and will enjoy the experience of learning if schools implement good-quality gender equitable curricula and ways of teaching. (Oxfam, 2007, p.27)

Gender appeared on my 'educational radar' by observing during my undergraduate and postgraduate studies. During my preparation to become a teacher, I witnessed few settings that encouraged inclusive practices, but many where the children segregated themselves into gendered groupings in school and social activities throughout the day. Also, it was here I observed that in so many of the schools and institutions I visited, males were in

leadership positions. Therefore, “from an early age Australian school children become aware of the school-based gender hierarchy and reliably presume, along with other students in New Zealand and North America, that, in schools men are principals and women are teachers” (Smith, 1985, cited in Gill, 2004, p.34). Even now, in my own network of school, I continue to observe more males in leadership positions than females.

At the time, it seemed like gender was not something that teachers recognised as important enough to converse about on any regular basis, if at all, but it appeared significant to some degree in every action that schools and teachers took. I began to question how this situation would impact upon children’s experiences, expectation and the exercise of their abilities. Regardless of its invisibility, gender is important and I began to see that gender messages and role models are powerful. Yet measuring the possible impact of these issues upon individual children is an impossible task, and would also require years of research. Therefore, rather than focusing on the students I decided that I would make the teacher the emphasis of my research.

Ultimately, “children will want to come to school and will enjoy the experience of learning if schools implement good-quality gender-equitable curricula and ways of teaching” (Oxfam, 2007, p.27). An inclusive approach can ensure gender equity is met, but the ‘curriculum is only as good as the teachers who deliver it’ (Oxfam, 2007, p.29) it is the teachers who hold so much responsibility for building inclusive learning practices, environments and settings that will positively influence children’s learning in, through and with gender.

The teacher has control over the practices, language, expectations and activities that are implemented into the learning environment. According to Ramon Lewis (a behavioural educational specialist from La Trobe University) 50% of the variance within the classroom is the teacher, therefore what a teacher says and does is extremely significant (personal communication, February 24, 2010). The teacher also supplies a more tangible source of data, as a teacher can more articulately communicate their interpretations on a more complex level, supplying rationales for thoughts and processes.

A teacher’s ability to remove stereotypical, biased or gendered expectations, behaviour and language from the learning environment, and to gently guide students through

inclusive experiences will influence how a child interprets gender. As teachers we are in a position to considerably influence how children perceive themselves and others through the inclusive learning and teaching experiences that they encounter. My interest and concern is to know more about how teachers can fulfil this requirement.

2.7 The beginning and development of the research project

My research project focused on a single teacher and a single classroom in one school. I was fortunate to have a teacher participant who gave herself so willingly to this project. The teacher was involved in this project from its inception and (she) was quick to embrace new methods of practice as part of the project.

To prepare myself for the research I initially volunteered at the case study setting, to become familiar with the teacher and the classroom. This led to insights into the teacher's practices and behaviour, the classroom environment and the children prior to the enactment of the action inquiry process and the collection of data that formed the project.

It should be noted that I later received ongoing employment at this school, but the conduct of the action inquiry research cycles and the collection of the data were completed while I was **not** an employee. However, I have attained insights into the school's internal affairs since gaining employment and these have been inevitably informant of my analysis and conclusions. Researchers bring personal and professional knowledge and experience to bear on their work with interpretation, analysis and formulation of findings and it happens that in this case I brought insider knowledge of the school to the final stages of the project that was not present during the data collection.

The project was framed in a way that was in keeping with the schools timetable and curriculum to ensure a level of convenience for all those involved. The research includes various perspectives: the teacher, students and an external 'voice' (researcher) to ensure more unbiased outcomes. The project includes several methods of research: interviews, observations and data collection, to guarantee all aspects of the research environment is included. Although this research is only a 'snap shot' of a teacher's reality, the timeframe was long enough to make comparisons and to make some judgments on a surprisingly

large amounts of data and observations. Each of the learning experiences will be further discussed later in the thesis, yet observing single gendered groups and co-ed groups within various learning areas, are drawn from many studies completed all over the globe.

2.8 The significance of the research questions

What follows is a brief discussion of the importance and significance of the proposed research questions. The research questions are:

- How does a teacher's awareness of gendered teaching, learning and behaviour influence their teaching approach?
- How does a teacher reflect on teaching and learning practices in working towards a gender inclusive classroom?
- How are students interpreting their teacher's gender inclusive teaching practices within their learning environment?

The teacher was made the focus of the project because investigating students' awareness of gendered learning and teaching was beyond the scope of what as possible within the timeframe available. As the preferred research subject, the teacher could carry out specific actions, make comparisons and consciously build upon her explanations of her teaching. I focused on gendered teaching, learning and behaviour because all of these features are observable and can be reflected upon by my teacher participant and myself as researcher. The importance of gendered teaching, learning and behaviours and their potential impact upon a child's learning are demonstrated in the literature review. Ultimately, addressing these issues highlight what many teachers want to know about their gendered work and other professionals interested in gender and education are working towards.

The second research question was included to investigate how specific learning and teaching practices directed at gender inclusion are understood and assessed. Teachers reflect on practice as part of their day to day work and bringing that reflection into the research in a structured and focused way brings a critical approach to understanding the rationale and the impact of gendered learning and teaching that has been observed and documented. Reflection alters our approach to students in the future, while also

influencing what and how we teach our students in the immediate present. By observing and discussing practice and observations of practice with the teacher, I am able to locate decision making within the context of what actually took place. Determining what information the teacher prioritised for reflection, was an indication of her teaching approach and what she believed to be a major concern within the curriculum. Also, determining what it was that was having an impact on gendered and inclusive teaching was an essential component of this research.

The third research question shifts the focus to an alternative point of view, that of the children, or to hearing the 'children's voice' about gendered and inclusive teaching. The students' understandings of gender, fairness and behaviour were explored through observation and informal, incidental conversation during lessons that were a part of the research project. It was important to gain some sense of their interpretations about inclusion in learning environment and the teacher's influence on those experiences. Informal questions focused on both current learning environments that were part of lessons in the action inquiry cycles as well as those prior. In hindsight, it proved difficult to pursue children's views on gender in such an informal way and care was needed in using language when gender means simply girls and/or boys. Inevitably, children took questions to different directions. Nonetheless, this was an essential component for comparison of data from observation and reflection and made the project more comprehensive.

The importance of this research is that it serves several purposes. It provides an opportunity for a classroom teacher to reflect upon their philosophy and teaching practices. Teachers rarely have the chance to focus on one particular issue of their practice and attain in-depth feedback from a critical friend who is not a peer (but an 'outsider'). It provides an opportunity to contrast specific activities resources as part of developing a repertoire of inclusive practices. It also provides an opportunity to examine subtle biases creep into teachers' practices in behaviours, the use of language, and the kinds of learning environments that are routinely created. As the researcher, I will be observing how inclusive practices have been embraced with a classroom and reviewing how the children reacted to this change.

Teachers need to be better informed, not just on simple stereotypes but also the physical, cognitive and behavioural differences in classrooms and students as they specifically relate to gender. An inclusive approach to teaching seems is the only way to avoid bias and focus on the child and their learning needs. Therefore there are several beneficiaries to this project, as it is not only my intention to assist the teacher and through that the students she teaches, but the project does hope to improve the perspectives of others that read this thesis and help them realise the importance of the hidden gender curriculum plays a within our classrooms.

As a postscript, although the teacher participant has since moved away from the research setting school to take up a consultancy position, I spoke to her recently about a book we used and discussed at great length in this project *Bill's New Frock* (Frank, 2002). She has been using this book and her experience with in this project to other teachers. To me, this displays the powerful impact it had upon her perspectives on gendered and inclusive learning and teaching.

Chapter Three

Literature Review

To effectively answer the research questions and attain a better understanding of the project's purpose, each component of the research problem and its questions (and the terms connected to the topic) must be discussed through an informing literature to reveal their meanings. Therefore, terms such as *gender* and *inclusion* must be clearly defined as these are key terms referred to frequently throughout the thesis. Other related terms such as *sex role socialisation* and the *hidden curriculum* are linked to these key concepts and, due to their impact upon children's experience of gender and inclusion, consequently also need to be discussed and clearly defined. This chapter will review and assess some of the scholarly and professional literature relevant to gender inclusion in the primary school and, as well as defining key terms, it will build an argument for the projects objectives and rationale.

3.1 Definition of gender

The meaning of the term *gender* can initially be located in “the cultural difference between women from men based on the biological division between male and female” (Connell, 2003, p.9). Connell's position is that the concept of gender cannot be restricted to biology as bodily gender differences may not be present and therefore psychological differences and the influence of social structure will be included into this project's working definition of gender. The need for including behavioural aspects of gender is demonstrated by research that has suggested that “children learn that the world is gendered at a very young age and, soon after, develop a sense of their own gender identity” (Banks, 2007, p.79). The socialisation process for a child allows each individual to attain their own interpretation of sex roles, gender appropriate behaviour and stereotypes. These interpretations are influenced by a child's family, their school, peer group and the media. A child's acquisition of gender and sex roles occurs gradually and can become “deeply ingrained within people's psyches and behaviour and deeply inscribed within school cultures and education systems” (Kenway & Willis, 1997, p.xvi).

3.2 Significance of gender

Consequently school can be a vessel in which children begin “to think of themselves as the kind of people they were supposed to be... [and] actually develop the traits of character that society thought appropriate for women or for men” (Connell, 2003, p.77). These factors make gender reform in most classroom settings a difficult task, as the teacher is potentially competing with years of gender-learning and associated ingrained stereotypes, biases and behaviour from families, peer groups, the media and other teachers. For my project, the question arises: can our learning environment change all of these contributors?

Consequently, we must explore how children learn gender and how our society and the behaviour within our society impacts upon each individual’s understanding of their and others’ gender. This learning process is called *sex role socialisation* or *gender socialisation*, which “involves developing beliefs about gender roles, the expectations associated with each sex group, and, also, gender identity, an understanding of what it means to be male or female” (Banks, 2007, p.79.) This socialisation occurs throughout a life span and includes all aspects of our lives and with every new gendered situation we come upon “we learn about the roles associated with these situations and develop views of how we fit within them” (Banks, 2007, p.79). Gender is everywhere; we are constantly bombarded with images of men and women in various roles and responsibilities, within a variety of modes including popular culture and family or friends’ values and opinions. Each image of gender processed depicts a different way of thinking gender, whether it is stereotypical or non-stereotypical, for example; a woman as a sexual being, a ‘bitch’, a care giver, a mother, wife, daughter, or sister. A man may be represented as masculine, powerful or downtrodden, a father, son or brother. Gender cannot be ignored nor can it be avoided in our lives. Whether we are labelled and treated as a boy or a girl makes a difference from birth with the choosing of blankets, clothes, toys as evidenced in the dominance of the stereotypical colours of blue or pink. We attain many of our early opinions on gender through osmosis and our learning of gender can influence many of our choices in life, such as job choice, work place, friends and leisure pursuits. This was demonstrated in a study conducted in Scotland by Professor Ronald McQuide and Sue Bond (2003) that investigated how children tended to embrace stereotypical career paths, and formulate specific opinions on what occupations males and females should and should

not adopt. It could therefore be perceived that our understanding of gender is not officially taught, but those around us who display gendered identities, images, language and behaviour show us how to deal with situations where our gendered identity needs to be present and exercised. All of this forms our own opinions on gender. Unsurprisingly, as primary learning institutions “schools are powerful social and cultural institutions in constructing gender identity as they have a major influence on girls and boys and how they see themselves and each other. The formal and informal curriculums employed in schools shape children’s understandings about gender and the performance of gendered identity” (SACSA, 2001, n.p.). Consequently, gender as a learning issue does need to be prioritised, but does it receive the recognition it requires within the right context? The education of male and female students has predominantly been considered as separable entities, as will be demonstrated later in this chapter. However, an inclusive practice would look beyond the obvious separation of male and female education and towards a more inclusive vision. That is, what an individual needs, and not simply an approach restricted to a child being either male or female.

Gender within education has always been a controversial or ‘hot’ issue, and this can be traced from the era in which girls were not to be educated, to women first entering universities, to more current issues of single-sex classrooms within co-educational schools. The education system can mark these moments in history, as it seems to be forever changing from country to country and from social trend to social trend. Even in the few years that I have been teaching I have witnessed many changes including fads and trends about boys’ and girls’ education.

The Victorian education system in the last five years has transformed its assessment, its means of collating feedback, the path in which teachers are guided into leadership and how teachers apply for jobs. Soon the Department will also change how accountable its teachers are to parents by introducing the intranet. How schools embrace technologies is also under reconstruction with teachers now encouraged to accept previously discouraged technologies such as iPods, mobile phones and integrate these into their teaching and the curriculum. There are plans to change how we teach literacy with the withdrawal of the Early Years Program and the movement towards a National Curriculum. Although gender intertwines with all of these initiatives, and while gender has had some time at the

forefront with the educating boys' program, gender as an inclusive approach has not been focused upon exclusively or simultaneously.

What has been widely evident is the concern about the education of boys with Victoria and Queensland primarily focusing on male gender issues. However, not all Australian states have approached gender in the same way. The New South Wales Department of Education and Training has introduced *The Boys' and Girls' Education Strategy* to replace its *Gender Equity Strategy: Girls and Boys at School* that was created in 1996. This Department is aware of the impact gender has on the learning outcomes for children and has provided its educators with the following guidance.

The purpose of the Boys' and Girls' Education strategy is to assist all NSW government schools to undertake a strategic approach to address gender as an educational issue... to ensure that no student's participation, performance or achievement is adversely affected on the basis of gender or limiting expectations about gender roles... respectful relationships among and between boys' and girls' are promoted through the curriculum and civic life of the school.

<http://www.schools.nsw.edu.au/learning/yrk12focusareas/gendered/index.php>

The program aims to “promote the whole school's engagement with gender inclusive curriculum... enhance the school as a professional learning community... encourage the development of positive identities for boys' and girls' and also ensure that the school broadens its network to incorporate male and female education initiatives within the community”

<http://www.schools.nsw.edu.au/learning/yrk12focusareas/gendered/index.php>.

Other Departments of Education have similar programs in place. For example, the Western Australian Department of Education has recently conducted a two year study based on the merits of single gender classrooms. The research aimed for the following outcomes:

- Provide an evidence base to inform the Department in relation to the conditions that support improved student learning in single gender classes;
- Explore school-level issues relating to single gender classes as an educational option for students; and
- Contribute to Departmental advice to the Minister for Education and Training on single gender classes as a potential future policy development. (Department of Education and Training WA, Evaluation and Accountability Directorate, 2009, p. 4.)

The results of this study were based on academic performance, specific subject areas (that is, dance, ICT and physical education) and behaviour. Each school embraced a different area of study and there were varying results. For example, the learning outcomes of females within single-sex classes in reading and writing were often substantially better than the results achieved by females in mix-gender classes. Yet the boys attained inconclusive results, as the reading level of the males increased with the benefit of a mixed-gender classroom. In writing, males working at a lower level benefited from a single-sex classroom, while boys writing at a higher level benefited from a mixed-gender classroom. The school focusing on comparing single and mix-gender classes in dance and ICT saw an 18% increased in male enrolments into dance classes when the class was available only to males. Yet single and mixed-gender ICT classes showed no real trend, as both classes outperformed the other at different times. Observations of the students' behaviour found that "some sub-groups of boys, without the distraction of girls, reacted in anti-social ways to divert attention away from their own learning difficulties. Teachers have noticed that some low-ability girls behave in the same way and having noticed these behaviours, teachers are now more mindful of addressing them" (Department of Education and Training Western Australia, Evaluation and Accountability Directorate, 2009, p.25). Although these results are interesting and help to justify my decision to incorporate single and mixed-gender grouping into my project, it must be noted that many studies like this do not include the teacher and a description of how they approached these groupings.

Gender influences everything we teachers do: what we teach, how we assess and how we reflect. But, at a state or national level are education departments embracing a gender

neutral and inclusive approach? Quite simply, they are not. Yet, I wonder can gender bias, or stigmas and stereotypes really be removed from the classroom? This is especially pertinent when the presence of these things can be ever so subtle and without teacher development or formal programs can they and their influence be eliminated? Even if an inclusive approach was adopted and all teachers became aware of the subtle biases could they un-teach a lifetime of learnt opinions and embedded stereotypes?

Foundational theoretical analysis of gender and education resides in the work of Ann Oakley (1972). She began investigating how gender, school structure and broader social arrangements connected leading the claim “that there were ‘natural’ differences between the sexes which were self-evident and undeniable... [and that while] the constancy of sex must be admitted... so also must the variability of gender” (Oakley, 1972, p.16). The unpredictability of gender in education is significant and many of these factors will be discussed later in this chapter as it is important to understand the extent of its influence and how difficult it is work with opinions and behaviours that are forever evolving.

3.3 Definition of inclusion

The dictionary definition of *inclusion* is the “action of including” (The Australian Pocket Oxford Dictionary, 2003, p.555). Therefore, an inclusive classroom or curriculum will actively incorporate students’ needs and abilities into the curriculum regardless of categories of difference such as race, ethnicity, gender, or religion. It therefore would renounce any type of bias or stereotypical behaviour, language or activity. An *inclusive design* is defined as being a ‘universal approach’ and can also be described as a design ‘for all’ and therefore one that has respect for all. Consequently, inclusive classrooms would “seek to establish collaborative, supportive and nurturing communities of learners that are based on giving all students the services and accommodation they need to learn as well as respecting and learning from each other’s individual differences” (Salend, 2001, p.5). However, there are subtle points to be made about respecting individual differences. McAllister (2002) says that “working towards the goal of inclusive design requires that education be equitable, not necessarily equal. Academic standards are not lowered, but certain adaptations may be made” (cited in Dyjur, 2004, n.p). That is, learners do not receive identical instruction and they may start at different points, use different materials,

and be assessed in different ways. Equity means that the instruction meets the learners' needs. This resembles what is professionally expected of teachers, as we are taught to work with differing expectations for each learner and to approach their assessment in a manner that is more suited to their style of learning, ultimately making each child's education unique. Regardless of what perception you have of inclusive practices there is a basic structure of an *inclusive classroom* which incorporates the following four principles: diversity, individual need, reflective practice and collaboration.

1. Diversity

To create a diverse community within the classroom, students will be provided with a high quality, age-appropriate education regardless of gender, race, cultural background, linguistic ability, learning ability, religion, family structure, economic status, or ethnicity. Inclusive practices provide students with the opportunity to learn and play together.

2. Individual needs

“In inclusive classrooms, all students are valued as individuals capable of learning and contributing to society” (Salend, 2001, p.7). Inclusive practice encourages teachers and students to be sensitive to, and accept, each individual's needs and difference.

3. Reflective practice

Reflective educators continually ensure that their attitudes, teaching and classroom management practices, and the curriculum meet each students needs. Teachers who adopt inclusive practices are flexible, responsive and critically reflect upon their values and beliefs to constantly improve their teaching practices and in turn the learning experience of all their students.

4. Collaboration

In order for inclusive practices to be effective they require the collaboration of educators, other professionals, students, families and community agencies. The group should work “cooperatively and reflectively, sharing resources, responsibilities, skills, decisions and advocacy for the students' benefit” (Salend, 2001, p.7).

Ultimately an effective all encompassing definition of a gender inclusive learning environment is that it “supports gender preferences [and] is one that offers different ways to learn, and more than one form of representation; it offers activities that are connected, relational, and holistic; it values feelings, intuitions, and experiences as well as knowledge; and it offers learner control” (Campbell, 2000, p.131). It may seem to be an uncomplicated and straightforward approach, but as will be discussed later in this chapter the hidden curriculum and the inadvertent actions and language used in the presence of children makes an inclusive classroom a difficult, albeit highly sought after, learning environment.

Therefore, in order to attain an inclusive classroom, and in order to create a gender equitable school, we need to ask the following questions:

- What perceptions of femininity and masculinity are children bringing to school?
- What perceptions of femininity and masculinity is the school presenting to the children?
- Are the schools’ teachers expected to show an awareness of gender equity issues?
- “What initiatives, strategies, and projects can the whole school undertake to develop a program for gender equity?” (Oxfam, 2007, p. 30).

3.4 Associated definitions

The research conducted by the United Nations Girls’ Education Initiative (UNGEI) *Girls Too! Education for All* program makes claims that the gender socialisation process begins at birth and continues throughout the life-cycle. In a paper written by Stewart (1999) for ‘Mind’ (Nation Association for Mental Health), it was stated that “a child develops their sense of gender identity at a very early age, usually around two years old... Hereafter a process known as ‘gender-role learning’ occurs, whereby a child’s behaviour is continually matched according to sets of standards shared by parents, teachers and other children” (p.4). However, it is difficult to believe that at age five a child’s perceptions of gender cannot be influenced and altered, as this flies in the face of the experience of many. Therefore, even though most children will have developed a firm sense of gender before

they reach primary school, gender socialisation may still be open to influence and reconstruction. Teachers are the ideal guides this could occur, especially given the amount of interactions teacher have with gender, the amount of time spent with students and the amount of incidental learning that can take place. Therefore, it has been suggested by Measor and Sikes (1992, p.53) that in order for a school to become more gender 'savvy' and influential with gender socialisation they should be conscious of the following.

1. The organisation of the school
2. The organisation and management of classrooms and lessons
3. The curriculum
4. Teacher's activities and actions
5. The hidden curriculum
6. Teachers' career structures
7. Children's informal culture.

The *hidden curriculum* is an important element of the list above. It is a term used to explain all those veiled aspects of our program that provide children with learning that are not officially taught (Young, 1971). This teaching occurs incidentally, sometimes (or even often) without the teacher even being aware of it taking place. This could be considered the most significant component within the above list as far as gender is concerned (Mac an Ghail, 1994). The hidden curriculum can be identified through visible practices (Wing, 1997) such as:

- i. the language teachers use,
- ii. a teacher's reactions to certain comments,
- iii. how teacher's manage their classroom and their students behaviour, and
- iv. the resources a teacher chooses to introduce into their classrooms.

It is very important that we pay the *hidden curriculum* its due level of recognition, as the hidden curriculum teaches children many things about themselves and what others expect from them (Apple, 1995). An example of the gender hidden curriculum supplied by Barbara Banks describes the roles taken by male and female teachers, something that is constantly visible to all students.

Students pick up important, if unintentional, lessons from the gendered division of labour of school staff. Additionally, differential assignment of women and

men teachers to certain subject areas may reinforce students' perceptions that certain subjects are masculine or feminine domains. (Banks, 2007 p.573)

Primary teaching is a career dominated by females, as revealed by the study conducted by Johnston et al. (1999) that examined the factors influencing the primary teaching as a career choice. Although females are dominant within the profession, it is mostly lead by males. You only have to visit a principal's regional meeting to observe the significant imbalance in gender of school leaders. What messages does this inadvertently send to our students? This is a long standing message, as a study completed as far back as 1985 showed that while 78% of primary and nursery teachers were women, men held 69% of principal positions. The results today may be different, but they do still not match with gender ratio within the profession itself. Therefore the education system is active in "maintaining symbolic representations of male rationality and female subservience" (Arnot & Mac an Ghail, 2006, p.19) and communicating that to students as part of the hidden curriculum.

However, over-turning the hidden curriculum is a difficult task for individual teachers. Each teacher is unique with their own thoughts and opinions and this ultimately affects how and what they teach. Unpacking out own gender socialisation and the role it plays in our own taken for granted practices requires focus and training. It affects teachers' work in many ways as "some practices are hidden under a veneer of neutrality, not even recognized as privileging some learners while discriminating against others. It is not only through the curriculum that learners can be disadvantaged. Classroom policies and practices can work against some students. Learning activities and student assessment techniques are often seen as value-neutral; yet, the learner's gender, age, ability, culture, language, religion, and social class can all have a significant impact on how he or she learns" (Barajas & Higbee, 2002, cited in Dyjur 2004, n.p.).

So how can we better combat the hidden curriculum? Ultimately, universities should take some of the responsibility in preparing future educators how to approach this issue. However, this may also prove a difficult task. Research conducted by Skelton found that "gender issues were not a priority in the teacher education course... [and] conventional images and stereotypes continued to operate at a 'hidden curriculum' level, conveying messages to novice teachers which reinforced the status quo" (Skelton & Francis, 2005,

p.25). After reviewing my university degree, little time was spent in teaching me how to recognise and confront the hidden curriculum. Gender differences were mostly, if not only, encountered as different learning styles. How are teachers supposed to combat this issue without adequate support and development? Should the responsibility fall to the schools and the system? However, even at that level it remains a difficult task. A study conducted by the Tasmanian Department of Education, that investigated the extent to which school principals engaged and supported their teachers with gendered professional development materials, discovered that:

1. Nearly three-quarters of principals (although the proportions vary considerably by State) have attended at least one course on gender issues. Nearly half of the principals reported distributing literature on gender matters to their staff. Just over half reported that gender issues were discussed routinely at staff meetings.
2. Only half of the teachers in the sample had attended a course (or more) on gender issues for schools.

<http://www.education.tas.gov.au/school/health/inclusive/gender/support/schooleducation>)

Perhaps the federal government should set requirements upon each state to ensure gender and equity policy and programs are consistent within all Australian schools. With the ongoing development and implementation of the Australian Curriculum in coming months, it will be interesting to see if, at all, the hidden curriculum (especially related to gender) is addressed.

Children's *informal culture* is another factor that can be extremely influential on learning about gender and gender socialisation. Any teacher would agree some of the casual conversations teachers participate in can truly alter a child's perceptions of an issue, or deflate, encourage or influence their attitude. For example, in an article published by Childhood Education, it was stated that:

...teachers' biases, intentional or otherwise, also send clear and harmful messages that are very influential as children form beliefs in their own abilities. Children's perceptions of gender roles are affected not only by overt forms of gender bias, such as being told they can or cannot do a task because of their gender, but also by the 'hidden curriculum'- the subtle lessons that children

encounter everyday through teachers' behaviour, feedback, classroom segregation, and instructional materials (Frawley, 2005, n.p.)

Another component of the *informal culture* is the influence of peer groups. Placing the words 'peer pressure' into a search engine reveals the extent of scholarly and other commentaries that discuss the powerful impact a peer may have on another impressionable mind in informal and educational settings (Slee & Rigby, 1998). This plays a role with gendered learning and in related areas such as sexuality (Keddie, 2006). Quite recently I witnessed a group of children discussing the different meanings of 'gay'. Throughout my teaching career I have witnessed children chatting about relationships, homosexuality and sex, with children forming their views on these issues because of these conversations. The informal culture within the classroom is a powerful vehicle for learning about gender and it cannot be underestimated.

It is not just how we teach that needs concentration, but what we teach. Therefore, the 'actual curriculum', as opposed to the 'written down curriculum', must also be audited to ensure it is approaching gender in an effective manner. For example, does what we teach encourage varied styles of learning, provide positive role models for all children, present inspiration for children's potential, or encourage an environment that is reflective about gender?

Research conducted by Newkirk (2002) states that "females typically favour narrative forms of discourse, while males tend to favour nonfiction, action and adventure. Narrative stories, however, tend to be given more importance academically than forms of discourse favoured by males... [and] such preferences tend to put boys at a disadvantage in the early school years" (Newkirk, 2002, cited in Dyjur, 2004, p.3). However, my observation is that many integrated units of work do not supply girls with an opportunity to be exposed to female role models. In recent times, the Victorian Department of Education has made a significant step in focusing on male students and developing their literacy skills, by encouraging schools to adopt a more 'male friendly' teaching approach and in using male role models. In the light of the literature reviewed above, focusing on one gender rather than including both will not bring about optimum results.

School systems and academics continue to conduct research to uncover new information that will inform teachers of what approaches, language, or attitudes should and should not be present within the classroom environment. But how does a teacher in a primary school absorb this research knowledge? Do they integrate research findings into their general teaching practices? How will their students' react to these teaching practices? The inherently practical nature of these questions played a vital role in the defining of my research process in order to ensure that information generated by the project's objectives would have some utility beyond simply responding to the questions (themselves). Many like studies have been conducted around the world and in various contexts and in different eras. However, how applicable are these studies and their findings now? And, do they apply to a small school in Melbourne at the beginning of the 21st Century?

3.5 Rationale for alterations in gendered groupings

Throughout the years there has been a considerable amount of research and debate on the outcomes of mixed and single-sex education and their respective effects within schools. There are theories about the benefit of co-educational settings, about single-sex schools and single-sex classrooms in co-educational schools. For instance, there are arguments that co-education "provides an environment that is more realistic and conducive to social adjustment... [and others that say] in mixed settings such factors as differential expectations and treatment by teachers, male dominance and girls serving as a negative reference group come into play" (Robinson & Smithers, 2006, p.6) whereas, single-sex environments allow "boys and girls to feel more at ease, feel more able to interact with learning and feel free to show real interest without inhibition" (Robinson & Smithers, 2006, p.27).

An essential component of this research project was to produce worthwhile comparisons by separating the case study group into single and mixed-gender groups, and to observe how the teacher interacts and behaves with the different groupings. The importance of these observations has been reinforced by countless studies that have found differences within gendered groupings by investigating how the teacher's teaching style differs when dealing with each gender or how the children respond to the change of teaching style (Rennie & Parker, 1997; Forgasz, Leder & Taylor, 2007). But will that research differ to

my project's case study and will the participant teacher's behaviour differ to those teachers reported in other studies? These will be questions for me to reflect upon in the discussion of my findings.

It has been asserted that "teachers often fail to appreciate the important difference gender makes in learning, especially when students are in a mixed-gender classroom" (Zittleman & Sadker, 2003, pp.64-67). As a teacher I understand this statement, because so often when it comes to grouping students, gender is the last considered factor, where the preference is to group according to similar abilities, or to group to minimise negative behaviours. So, in my project, by encouraging the participant teacher to embrace both single and mixed-gender of groupings within her co-educational setting, I was hoping to not only draw the teacher's attention to the different learning styles of male and female students, but also to become aware of how differently these groups learn, both together and separately.

Gendered grouping of children is embedded in the single-sex education debate. Which type of grouping produces more benefits? This debate is closely connected to the decisions I made throughout the research process, and therefore it was important to review both sides of the argument. I began by looking first at the research conducted within Australia, such as studies conducted by Cresswell, Rowe and Withers (2002), and the Department of Education and Training of Western Australia's Evaluation and Accountability Directorate (2009). Along with further investigation into international research, I discovered that single-sex classrooms provide these differing outcomes.

- "Many students feel 'less anxiety and more confidence'" (Thompson & Ungerleider, 2004, cited in Department of Education and Training Western Australia, Evaluation and Accountability Directorate, 2009, p.11).
- "Younger et al. (2005) found that boys and girls may feel more at ease in single sex classes, feel more able to interact with learning and feel free to show interest in the lesson without inhibition. It was felt that there can be positive effects on achievement for boys in modern languages and girls in science and maths" (<http://nationalstrategies.standards.dcsf.gov.uk/node/46133>).
- "Some single-gender environments can positively influence the motivation and engagement of boys and girls, and can generate less vulnerability and a greater

sense of inclusion than in some mixed gender classes” (Younger & Warrington, 2006, cited in Department of Education and Training Western Australia, Evaluation and Accountability Directorate, 2009, p.11)

- “A single-gender classroom may also provide both male and female students with the safe a supportive environment necessary for productive group discussion, since it is without the interruptive patterns of interaction that occur in coeducational situations” (MCEETYA, 1997, cited in Department of Education and Training Western Australia, Evaluation and Accountability Directorate, 2009, p.11).

Earlier research suggests that single-sex education encourages student driven learning and that students seek more assistance more often from classmates of the same sex anyway and students appear to be more cooperative within a single-sex environment (Spender, 1982). However, Spender also discovered that single-sex education prevents differentiation in how much time a teacher spends with either sex. It was “estimated that boys receive two-thirds of a teacher’s time in mixed-sex classrooms, principally through a higher incidence of teacher-demanding behaviours and teacher-student disciplinary interactions” (Spender, 1982, cited in Cresswell, Rowe & Withers, 2002, p.18). Yet again, this demonstrates how gender influences the way in which teachers and students interact with each other and how schools are powerful settings for educating children about gender.

Australian researchers Ainley and Daly (2002) found that female likeliness to study mathematics or science at high school did not improve by attending a single-sex school and that this was attributed to other factors that may be cultural, social, or even genetic. Because research findings can be inconsistent, with some finding gender differences affect outcomes, while other research suggesting that gender differences matters little, we are often required to work with the variance of research outcomes in forming opinions that fit with experience.

Nonetheless, confidence and subject selection is not the only personality trait that can flourish within an all female educational setting. Booth and Nolen (2009) conducted research which found that whether a female is in a same-sex or a mixed-gendered learning environment impacts upon her competitive drive. The study discovered that “girls from single-sex schools choose to enter the tournament (competition) more than girls from co-

ed schools” (p.20) and that female’s level of competition within a single-sex learning environment can be equivalent to that of males when confidence is provided. These outcomes encourage certain questions to emerge, such as; if there are so many benefits to single-sex groupings why would all schools not be structured in this manner and can such significant differences be shown within a normal classroom setting?

Other research projects have produced similar findings that suggest the benefits of single-sex groupings, such as the UNESCO Asia team, which found that “in girl-only learning environments, girls are exposed to more successful female role models. The top students in all academic subjects and the leaders in sport and extra-curricular activities are girls. Building onto this, some research indicates that adolescent girls feel better about themselves in many ways when they are educated in girls' schools as opposed to co-educational schools” (Strabiner, 2002, cited in UNESCO, 2007, p.9). They also reported that females “feel better about their bodies and their body image as well as about their academic abilities. By promoting self-esteem, single-sex schools may better equip girls to fight for their human rights in gender-biased male-dominated societies” (Stabiner, 2002 cited in UNESCO, 2007, p.9). From this it can be argued that females (especially) require female role models for encouragement in non-traditional subject areas in order to overcome barriers created by stereotypical assumptions. Therefore, an investigation of female groupings has been included in this research project.

However, there are those who report findings that question such views. As the American Association of University Women Education Foundation (AAUW) state that “there is no evidence that single-sex education in general “work” or is “better” than co-education. The “success” or “failure” of any K-12 single-sex education initiative is relative to a particular group of students in a particular setting and a given set of academic or social objectives” (AAUW, 1998 p. 2) Ultimately, there needs to be closer investigations into the benefits of single-sex classes, as this will bring about more informed outcomes on its effectiveness. Research like this is driven by a desire to locate benefits for females, but it is also important to determine what is known about the benefits for male students within single and mixed-gender classroom groupings.

Research by Wong, Lam and Ho (2002) suggests that “co-educational settings appear to be more beneficial to boys than to girls” (cited in Forgasz, Leder & Taylor, 2007, p.3).

Schools such as Callista Primary School and Clarkson Primary School in Western Australia have conducted their own research into the success of single-sex male classrooms and discovered that the boys' presentation of work improved, their behaviour and level of engagement increased (University of Newcastle, 2001). This contradicts the popular assumption that boys do better when girls set a good example through their presence in the classroom (<http://www.singlesexschools.org/research-forboys.htm>). In fact an article published by the Guardian Newspaper claims that "boys do best with as few girls as possible in English lessons at primary and secondary school" (Shepherd, 2009, para 2).

However, these examples are just a few of the many benefits researchers have discovered about male only learning environments. Other benefits for boys' education within a single-sex environment include:

- Boys in a single sex classroom are more likely to broaden their horizons and "feel free to explore their own strengths and interests, not constrained by gender stereotypes" (<http://www.singlesexschools.org/evidence.html>).
- Within a single-sex learning environment boys are more likely to embrace subjects that are stereotypically considered more 'feminine', such as drama, biology and languages.
- Boys thrive in an environment that focuses on their style of learning, within an all male learning environment. Teachers are able to embrace these styles and create lessons that encourage their enthusiasm and interest in school.

There are social benefits to males being educated independently, as they are able to develop more confidence and are not as conscious of what the opposite sex thinks of them. Educating males independently does appear to have as many benefits to boys being educated within a co-educational environment, but this is one opinion and although I have adopted this approach throughout this research, this topic is extremely debatable.

However, there is research to suggest that there is no real difference in outcomes between segregating students as opposed to keeping them together. The argument is that there are other factors besides gender that alter student outcomes. For example, citing American research, Forgasz (2007) points out that "when socio-economic backgrounds are taken into

consideration there are no substantive differences in boys' or girls' academic achievement in single-sex and co-educational settings" (p.2). That is to say, disadvantage impacts on learning regardless of the gender grouping of setting.

An Australian study of a single-sex boys' school and single-sex girls' school combining as a co-educational school, reported by Robinson and Smithers (2006), sums up the results of my survey of research and inquiry into gendered groupings in schools. It did not find any academic disadvantages for either sex, but did acknowledge that there were likely to be social advantages and that ultimately, "while some schools may be better than others, and while some pupils may do better in a single sex or mixed environment, there is no general rule... effectiveness cannot be raised by merely segregating the sexes" (Robinson & Smithers, 2006, p.13).

Also, the *Gender and Education Mythbusters* proposal (2009), published by Great Britain's Department for Children, Schools and Families, claims that many of the supposed gender differences are simply a myth. For example, that boys and girls have different learning styles, which teaching needs to match, is considered a myth. According to this proposal the concept of learning styles is contestable and "there is no evidence that learning styles can be clearly distinguished one from another, or that these learning styles are gender specific... [and] studies have failed to find conclusive links between gender and learning style. Where learning practices and preferences may be gendered (for example, girls enjoying group work etc), such preferences may be due to social norms" (Department for Children, Schools and Families, 2009, p.4). Another named myth is that single-sex classes will necessarily improve boys' and girls' achievement. Again, this report produces evidence to suggest that "single-sex classes have very mixed results, and have not been shown to be the decisive ingredient in lifting boys' achievement, but have, in some cases, improved girls' achievement" (Department for Children, Schools and Families, 2009, p.5).

Another named myth was that "changing or designing the curriculum to be 'boy-friendly' will increase boys' motivation and aid their achievement" (Department for Children, Schools and Families, 2009, p.6). The *Gender and Education Mythbusters* report says that:

...designing a 'boy-friendly' curriculum has not been shown to improve boys' achievement... Such changes may involve gender-stereotyping which can lead teachers to ignore pupils' actual preferences and limit the choices that either boys or girls can make. Schools where boys and girls achieve highly, with little or no gender gaps in subjects (particularly English), have high expectations of all pupils; have not designed a 'boy-friendly' curriculum; and in English encourage all pupils to read widely, offer them plenty of choices and plan to both engage children's interests and extend the range of reading. (Department for Children, Schools and Families, 2009, p.6)

This suggests that the offered rationales for 'boy-friendly' curricula are misinformed and that practice they are not only biased but also ineffective.

My survey of the literature has found the same as that which others have often emphasised after comparison of studies on mixed and single-sex groupings: the outcomes are inconsistent and varied. Literature reviews of research conducted in Australia, America, Canada, New Zealand, Ireland and the UK, usually end up with a conclusion like that made by Robinson & Smithers (2006): "it is difficult to compare like with like since in most Western countries single-sex schools are a small special group and differ in ways other than the gender of their intake" (p.5) and that factors beyond gendered groupings also impact upon learning.

The breadth of research surveyed has produced opposing results in deciphering gender differences in learning, but irrespective of the arguments on either side, they do seem to be apparent within my classroom that of colleagues. Although I am acknowledging that research shows that segregating or combining students within their educational setting produce may produce some, or limited, or no change to outcomes, there are benefits to knowing that this topic remains contested. However, in my experience given that teachers do claim to observe differences between students' behaviour, learning outcomes and attitude when gender groupings are varied within co-educational learning environments, the topic remains an area for classroom-based practitioner research.

Investigating varied gender groupings during this research project provides an important measure of comparison, for the participant teacher, and for me as observer and researcher,

in using such diverse research and professional resources in developing and improving a teacher's repertoire of practices for working with gender in a co-educational classroom. The following sections of this chapter will explain rationales for the design and conduct of my research project by drawing upon other literature about gendered and inclusive environments and practices. My purpose is to ground a practical approach to the project in the light of the above review of research before describing my methodological stance in the following chapter.

3.6 Rationale for observation of the classroom and its resources

The resources available and used within a classroom teach and influence children's perceptions of gender. In a famous study conducted in Lobban in 1975, it was revealed that many books used to teach children how to read in Britain contained images of women and men leading very separate lives, with women at home caring for children while males were generally shown as more dominant characters engaged with a wider range of activities. She was concerned that because children spent so much time with these books, they were "likely to absorb stereotyped roles and expectations about gender at the same time as they learn to read. Children learn that it is 'normal' for mums to stay at home and for dads to go out to work, even if their own experience does not confirm this" (Measor & Sikes, 1992, p.57). Since then much has changed and books like *The Enchanted Forest* and *Bill's New Frock*, that challenge stereotypes and present less gender biased images, are being utilised within the classroom. However, these are chapter books and cannot be used to teach children how to read, and many books that do teach children to read do not embrace non-stereotypical views.

It is recommended that teachers use textbooks and materials that include both males and females in various occupations or conducting actions or activities that are not necessarily gender-appropriate or stereotypical (Singh, 1998). These materials should provide children with a sense that they are all included and welcome. And through discussion and encouragement students can become critical consumers and challengers of sexism within teaching materials. Even at a young age children should investigate assumptions hidden within books and texts (MacNaughton, 2000). It also provides students with the opportunity to observe "models and mentors who represent a variety of perspectives and

professions” (Salend, 2001, p.101). Teachers should be aiming “to free children from constraining, stereotypical views of what ‘girls can do’ or what ‘boys can be’, thus opening up greater options for growth and development” (Sapon-Shevin, 1990 cited in Stainback & Stainback, 1992, p.26). My research project will focus on the gender appropriate resources used by the participant teacher in the studied classroom.

3.7 Rationale for observing teacher language

Since the early 1980s research has been conducted on the language that teachers use with their students, resulting in a claim that teachers address their students differently depending upon gender. Female students often receive terms of endearment, while boys receive terms that reinforce more masculine ideals (Browne & France, 1986, cited in Measor & Sikes, 1992). It has also been suggested that teachers should use gender inclusive or gender-neutral language which will help to undermine gender markings. This may be as simple as addressing the classroom with terms such as ‘class’ or ‘students’ rather than the customary ‘boys and girls’ (Wright, 2003). It is one way for children to look beyond their gender in order to form an identity and may prevent statements which can be misinterpreted by children. The significance of adopting gender inclusive language is that it recognises “that all people, irrespective of gender identity, are full and valued participants in our society. It does not portray women or men as being dependent, or in a stereotyped manner. It does not trivialise, denigrate or hide the experiences of a particular gender” (The University of Queensland, 2004, p.1) and this ultimately helps develop an inclusive classroom.

Yet it is not only how we address children that communicates bias through language, it also may occur through differing levels of praise that provided to male and female students. A study conducted by Sadker and Sadker (1994) found that “teachers praise students only 10% of the time... [and] criticism is even rarer – only 5% of comments. In many classrooms teachers do not use any praise or criticism at all... [and] about one-third of teacher interactions are composed of remediation, a dynamic and beneficial form of feedback” (Sadker & Sadker 1994, p. 54). Praise promotes confidence and self-esteem and provides students with a sense of satisfaction knowing that they have their teacher approval. Therefore, teachers need to consider gender messages in how equitable levels of

praise are provided to students, looking for opportunities of praise not only in academic achievements but in social and moral situations.

My research project will focus on the contribution of gender as a factor in the distribution of praise and how that is framed in language and the context in which it is used.

3.8 Rationale for observing the teacher's behaviour and interactions

Numerous authors have revealed that teacher interactions with students differ not only with gender, but also class, sexual orientation and ethnicity (Gale & Densmore, 2000; Keefe & Carrington, 2007). In the 1980s it was found that “although most teachers said they thought that they spent an equal amount of time with girls and boys in the classroom, observation of many lessons showed that teachers were forced to spend the majority of their time with boys simply to preserve some semblance of order” (Riddell, 2005, p.14) and that strategies “were often based on traditional gender codes and in their turn reinforced these conceptions of masculinity and femininity” (Riddell, 2005, p.18).

The point is that a teacher's interactions with their students are “at the heart of the hidden curriculum and are important means by which informal lessons about gender are transmitted in schools... and what teachers do not do in relation to gendered encounters has consequences for students informal learning about gender” (Banks, 2007, p.571). Our reactions can impact greatly on how a student informally learns about gender, which signifies the level of thought each teacher dedicates to this issue each and every day.

Research by Spencer, Porche and Tolman (2003) concluded that although most teachers gave both male and female students equal opportunity to participate in class activities, a majority of teachers did not ensure an equal distribution of classroom maintenance tasks, instead stereotypical attitudes are adopted. For example, “boys are asked to tackle physical jobs or mechanical skills while girls are assigned to grade papers” (Sadker & Sadker, 2007, p.188). What sort of message are we sending our students, if we are drilling our female students that they are not strong enough to carry a table, or that boys are not smart enough or neat enough to grade papers?

Also, research in the United States claims that “teachers call on boys more than girls, wait longer for boys to give an answer, and give more feedback to boys... Teachers also tend to assist girls more when they ask for help, instead of encouraging them to find the answers on their own...and to accept more unsolicited responses from boys” (Gool et al., 2006, n.p.). Other research has shown that “boys call out eight times more often than girls” (Sadker & Sadker, 1994, p.43) and it appears that when boys call out, it does not matter if their remarks are insightful or irrelevant teachers respond to the comments regardless. Yet if the same behaviour was demonstrated by a female student a teacher is more likely to restore a specific order to the discussion and the girl would be put quickly back into place.

Studies have also revealed that there are discrepancies in the amount of time teachers allow male and females to answer their questions. Sadker and Sadker (1994) observe that “waiting longer for a student to answer is one of the most powerful and positive things a teacher can do. It is a vote of confidence, a way of saying, ‘I have high expectations for you, so I will wait a little longer. I know you can get it if I give you a chance’” (p.57).

My research project will observe the participant teacher’s behaviour in calling upon students in class and the way (including frequency) in which interactions occur between her and both boys and girls across a range of activities in the classroom.

3.9 Summary of project significance

Teacher’s reading this thesis may be thinking “oh great just another list of confusing requirements to add to the ever growing pile of expectations placed onto my classroom practice”. Teaching can often be overwhelming, exhausting and a thankless, but through all these trials and tribulations, it is important to remain steadfast to your ideals and experience. For me, it is equity and inclusion and I hope that I have clearly demonstrated the need for an inclusive practice rather than focusing on either gender, or allowing yourself to be deterred by any form of bias (which first needs to be acknowledged). It is our duty as teachers to provide the best education for students and I believe that an inclusive classroom is what will get us there.

Chapter Four

Research Methodology

4.1 Introduction

To pursue my research problem and to investigate the research questions, the project adopted a collaborative, action inquiry, case study approach. But what does this mean and why is this approach most appropriate? In the following pages each of the three methodological fragments will be defined and investigated to justify their use within the project. There are several factors which have determined the choice of methodology, including the nature of the research question, the participants, the research setting, and the outcomes sought from the project. For instance, the project involved working with teachers and observing children in classrooms while investigating learning and teaching framed by the (gender inclusive) practices of a grade 3/4 primary school teacher. These contextual parameters, together with the research questions and the information (or data) which they require (for answers), are important in choosing a methodological approach and the methods which can deliver the evidence for generating knowledge that can bring the project to a successful conclusion.

As most novice researchers do, I began by exploring the difference between qualitative and quantitative forms of research. Creswell (2005) explained the difference by saying that in quantitative research “the researcher decides what to study, asks specific, narrow questions, collects numeric data from participants, analyse these numbers using statistics, and conducts the inquiry in an unbiased, objective manner” (p.39), whereas qualitative research relies often upon the views of the participants and is used when the research requires an “exploration in which little is known about the problem” or when “a detailed understanding of a central phenomenon” (Creswell, 2005, p.45). On the definition above, my project is qualitative in its approach as I am seeking an exploration and detailed understanding of gendered and inclusive teaching practices (and to a lesser extent the resultant learning outcomes) within a specific bounded context of a grade 3/4 primary classroom in a school setting in suburban Melbourne (Australia).

4.2 Case study

A case study is used to attain an in-depth understanding of the subject, focusing on the investigation and procedures rather than the final outcomes, on discovery rather than validating the results of the research with other projects. Case study theorist Stake (1995) says that “the case is an integrated system. The parts do not have to be working well, the purposes may be irrational, but it is a system” (p.2) and that ‘the case’ can include both single and multiple cases and can involve various levels of analysis. This approach is preferred when ‘what’, ‘why’, ‘who’ and ‘how’ questions are being asked and when the researcher has very little control over events, or when the focus is on a present-day issue within a real life setting. A case study maintains the holistic and meaningful characteristics within the research environment by accumulating data through either quantitative or qualitative methods and usually requires a considerable amount of data to ensure that a sufficient understanding is formed. A case study is also “preferred when the relevant behaviours cannot be manipulated” (Burns, 2000, p.461) and when “narrative, descriptive approaches to collect data and understand the way things are and what it means from the perspective of the research participant” (Mills, 2003, p4) is required. A case study researcher rarely adopts one particular role, as they are not a complete participant, nor are they totally an observer. Consequently, case study is appropriate to this project about a single teacher and classroom where teaching practices are being documented through action inquiry cycles involving participant and researcher over time. In this project used the following narrative and descriptive techniques were used to acquire data:

- Observations (both participant and non-participant descriptive and numerical data)
- Interviews (semi-structured and non-structured)
- Literature analysis

As Yin (2004) indicates, “case study research enables you [the researcher] to investigate important topics not easily covered by other methods” (p.1) through the narrative and descriptive approach. The literature reveals that there are several types of case studies; historical, observational, clinical, or multi-case studies, all of which have slightly altered destinations for a case study design. For example, this research project is an observational case study, as most of the research data is acquired through observations, and generally this type of case study has a specific focus, such as a classroom, teacher or (a) student(s). There are many benefits to this style of case study as ‘there are many times when the

spectator or television viewer gets a better perspective on what is going on than an individual player' (Burns, 2000, p.462). It is exactly this that was achieved throughout the research process, as I was able to discuss with the participant teacher (on many occasions) incidences that had occurred without her direct knowledge. Hardly surprising then that we both felt that it was amazing what can come from 'a second pair of eyes'.

However, as previously stated there are not only positive outcomes from the presence of an external observer. When another party infiltrates the classroom environment, it may alter the dynamic between the teacher and her students. Will the teacher change their interactions, their behaviour, or what is taught simply because someone is observing? I have observed scenarios where there has been different behaviour evident when a teacher is being watched compared to when not being watched. Is the relationship between the teacher and the observed too similar? If so, how much of the research do we have to pass over or offer up as a 'buffer' between what is real and what has been introduced? Although these factors must be considered, my research has an advantage in this regard as I had established a prior relationship with the teacher, in my role as a volunteer in the classroom, and had both knowledge of her teaching philosophy and a familiarity with the learning environment. The teacher and the children were accustomed to my presence in the room. This, I believe, was enough to ensure that what I observed was likely to be 'natural' behaviour and not influenced by the presence of a 'researcher'.

A case study usually involves three basic steps, the first of which involves defining the 'case' and deciding on a specific description to help organise the process. Burns states that it is "crucial to any successful case study of a group definition is the definition of the group as a unit which separates it in some way from the general population. You must make sure that they are not just people of the same age, sex, or other attribute, but actually identify with each other, share expectations and interact in a close way" (p.462). This was evident in my research, as the participant teacher and myself had a 'teaching' history together, in the setting, sharing expectations and pedagogies through my involvement with the class and the group of children. The children too, as learners within the learning environment under investigation, have a similar identification with the setting and the practices that form the base and focus of the case study.

The second step involves deciding upon whether your research is a 'one' case study or a set of cases in a 'multiple' case study. This research project is a single 'case' study, that analyses one teacher in a single classroom. It does not require, nor can it provide data to make comparisons between cases without making the project larger or running the risk of unsupported generalisations (Simons, 2009).

The third step involves developing a data collection protocol and data analysis strategies. Although this project also involves an action inquiry methodology, as well as case study, it is important to still follow basic principles. This is especially the case with an inexperienced researcher (such as myself) as is reflected in Yin's (2004) comment that "in general, the less experience you have had in doing case studies, the more that you might want to adopt some theoretical perspectives... [because] without them, and without adequate prior experience, you might have trouble convincing others that your case study had produced findings of any value to the field" (p.7). Therefore, I have been conscious of following the advice of more experienced case study practitioners in order to supply the project with credibility.

However it should be noted, combining a case study and action inquiry approach does produce some issues to be considered. For example, some case studies have the capacity to be generalised to the wider population, but action research is a personalised process and its outcomes (or actions) are immediately applicable only to the action researcher. There are also several possible 'downfalls' to using a case study approach with an approach as personalised and localised as an action inquiry. For example, many researchers believe that when using a case study approach "the role of human subjectivity when selecting evidence to support or refute, or when choosing a particular explanation for the evidence found. It is easy for the case study investigators to allow equivocal evidence or personal views to influence the direction of the findings" (Burns, 2000, p.473) and this requires ongoing attention. Another concern about case studies is that they are also known to be time-consuming and produce massive amounts of data and information that sometimes makes it impossible for the investigator to thoroughly analyse.

However, a case study approach is adopted here as it allows various forms of data collection to be incorporated into the action inquiry process. Case studies usually "involve the collection of very extensive data to produce an understanding of the entity being

studied” (Burns, 2000, p.460) and that is what will occur in this project about one teacher. A case study approach is also being embraced as it allows a single focus in a specific setting to be studied – here a teacher in a single classroom within one particular setting. In this ‘case’ the research is observing how the teacher interacts and behaves with the students in relation to gendered teaching and learning. By collaborating with the classroom teacher, incorporating the opinions of the students and reviewing gender and education based literature, many of a ‘downfalls’ of the approach can be avoided. It will not be one single opinion or view.

4.3 Action inquiry

Action inquiry, or action research, is the second methodological component in this project. The project is focuses on the teacher participant and the researcher working together to research the practice of the teacher over time, using the results of the research to change practice and to research again with the intent of further change to practice (McNiff & Whitehead, 2005; Noffke & Somekh, 2005). About inquiry, Tripp (2003) says:

Inquiry is always an active process on the part of the learner; inquiries may be collaborative, assisted by others, or made on behalf of others, but no one can make it a passive process - it can only be prevented or obviated.

<http://www2.fhs.usyd.edu.au/arow/arer/017.htm>

Several research methodologies are included within this ‘action inquiry umbrella’ such as: reflective practice, diagnostic practice, action learning, action research and researched action. Action inquiry involves “a process of theorising and testing our own, as well as other people’s ideas and theories in practice... [and] it is grounded in ideas about how knowledge is generalised and in the relationship between the knower and what is known” (Holly, Arhar & Kasten, 2005, p.33). Therefore, the most important characteristic of action inquiries “is that they follow a cycle of the same phases in the same order. But because the phases can be collapsed or expanded to suit the purpose of the inquiry, and the sequence can begin at any phase, the cycle comes in so many different guises that it is not always very obvious that it is the same cycle” (<http://www2.fhs.usyd.edu.au/arow/arer/017.htm>). That is, the basic cycle of action

inquiry is a forever evolving process that demands constant reflection and redirection of research pathways as shown below.

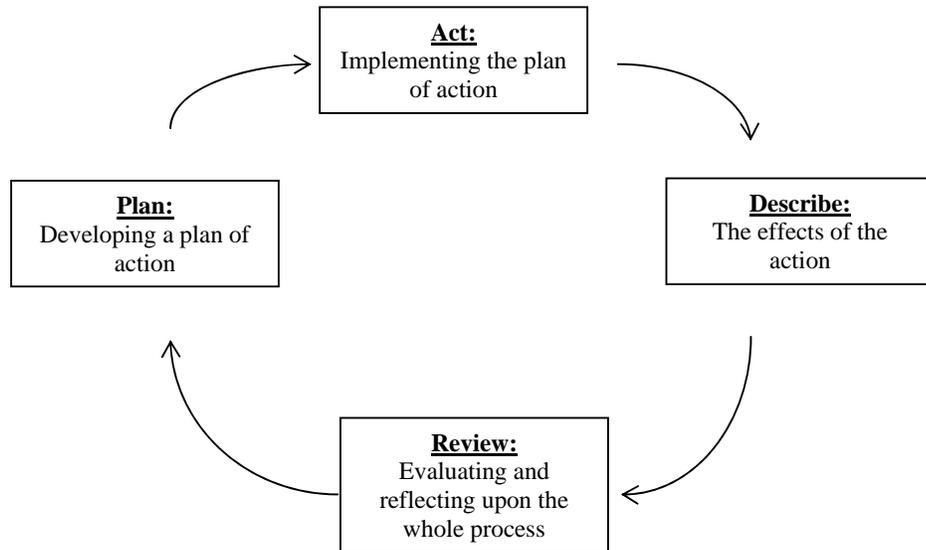


Figure 1: The action inquiry cycle

(<http://www.tlc.murdoch.edu.au/archive/cutsd99/handbook/section3a.html>).

An action inquiry cycle is a personal and individualised process, which is unique to the circumstances it cannot be replicated outside of that context. It will only produce outcomes that are applicable to the project’s researchers, the participants, their practices, and the attendant context (such as the students or the learning environment).

4.4 A project methodology

Simply informing teachers about research is unlikely to bring about change (Mills, 2003) and teachers need to be convinced about the utility of a project’s purpose or goals. In this project, this will be achieved through the investigation combining two forms of action inquiry to also ensure that the project gathers meaningful and relevant information using appropriate methods. Firstly, it will include the *action research* methodology, which is “a problem-solving approach to improve social conditions and processes of living in the real world” (Holly, Arhar & Kasten, 2005, p.31). Action research is the process by which amendments and understanding can occur simultaneously. However in the context of the

educational sector, action research is “any systematic inquiry conducted by teacher researchers, principals, school counsellors, or other stakeholders in the teaching/learning environment to gather information about how their particular schools operate, how they teach, and how well their students learn” (Mills, 2003, p.5). Amongst the many valuable attributes of action research is that it ‘implies a ‘bottom-up’ rather than a ‘top-down’ view of teacher development. The knowledge-generating model assumes that improvements in educational practice ought to be grounded in insights generated by teachers’ (Burns, 2000, p.97). It also encourages “teachers to be professional problem solvers who are committed to improving both their own practice and student outcomes” (Mills, 2003, p.10). For example, the teacher identifies a problem or an issue within their classroom or teaching philosophy, and proceeds to analyse his/her teaching practices, reflecting upon how they may improve the situation, to then record the outcomes and then implement a strategy to benefit their learning environment. This in turn allows teachers to become more influential in creating policies that are applicable to the teacher and his/her own students.

Action research can be carried out independently or within a collaborative group. It must be kept in mind that action research is a personal choice and it cannot be forced upon a teacher. It must be something the teacher is open to doing and it must be meaningful to his/her classroom and students. Mills (2003) argues this forcefully, saying that ‘if the process of action research cannot be done without adversely affecting the fundamental work of teaching, then it ought not to be done at all’ (p.14). Consequently, I was very conscious of how action research would be implemented, as a research project methodology, into the classroom structure and the teacher’s timetable. The teacher and I developed lessons and foci depending designed to complement the research, within the time available, and the subject matter that the class would be occupied with in that period. I had to be flexible and ensure that I was not interrupting their already busy curriculum with diversionary, artificial activity.

Yet unlike practitioner action research where the teacher is the investigator, this project included an ‘outsider’ to collaborate with the classroom teacher. Together they analysed and reflected upon the behaviour and practices of the classroom teacher, using the ‘outsider’ as an observer and a collaborator in bringing about change. As researcher, and the ‘outsider, I became what is known in the action research literature as a ‘critical friend’.

To accommodate for this distinguishing characteristic, ‘action learning’ was incorporated into the research process.

Action learning produces an understanding that can only be gained from experience. Action learning is not only understanding the literature but understanding the experience and its process. That is: attaining intellectual understanding, procedural understanding and knowing how it feels, or that: “action learning is about being there, in the sense of knowing how it feels as much as knowing what it is” (<http://www2.fhs.usyd.edu.au/arow/arer/017.htm>). Although action research and action learning share the same cycle, action learning differs from action research in that:

One approach is aimed at changing the way one performs an existing practice, the other is aimed at creating some kind of a practice in order to learn from it. They get confused because they both involve learning about a practice through practicing is, and people do not always distinguish what they are doing it for. (<http://www2.fhs.usyd.edu.au/arow/arer/017.htm>)

For example, in this approach the researcher and classroom teacher will collaborate in planning a course of action, in discussing what the researcher will observe and in deciding the learning experiences to be conducted by the teacher. The classroom teacher and the researcher, the critical friend, will act together except for the classroom teacher implementing the plan of action and the researcher observing that *in action*. Together, the teacher and the researcher will describe the effects or outcomes through their observations. A review process will then follow with the teacher and observer evaluating and reflecting upon the outcomes, in order to bring about informed change to the learning environment or to the teacher’s practices through formulation of a new plan of action that will be implemented. This cycle will be repeated a number of times.

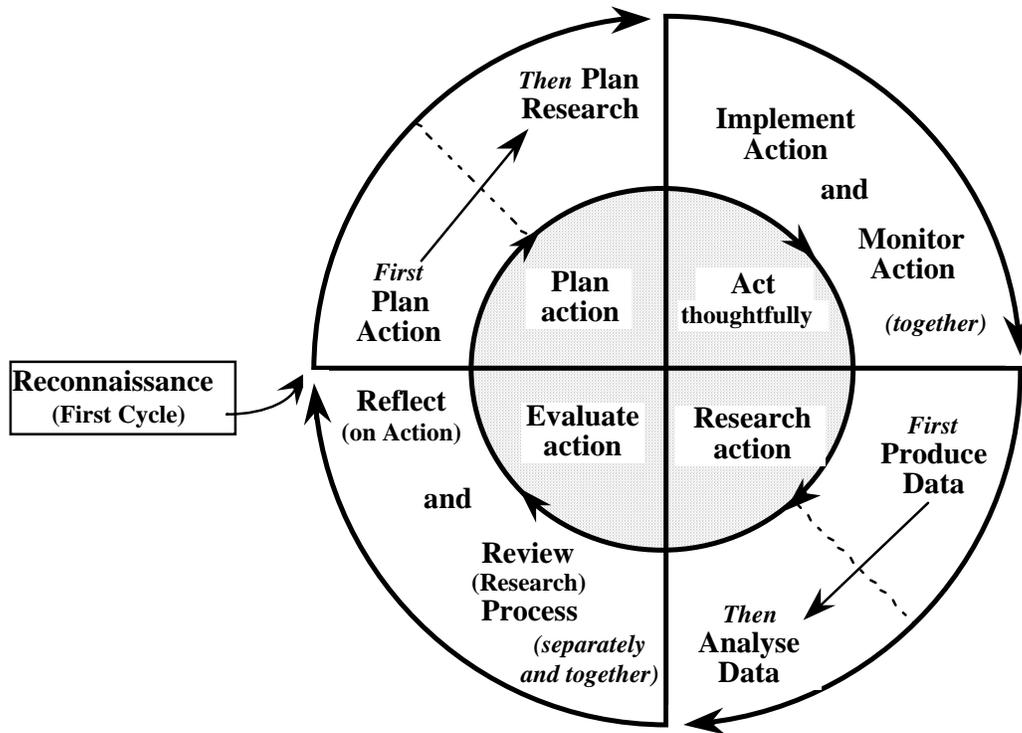


Figure 2: Full action research cycle

<http://www2.fhs.usyd.edu.au/arow/arer/017.htm>

David Tripp has described teachers as being on ‘auto pilot’ in reference to teachers adopting an uncritical and unconscious attitude towards their interactions and decision making capacities. However, “by building a better understanding of who we are and how we got to be this way, we shift from functioning on ‘auto pilot’ to a state of consciousness and even to critical consciousness” (Holly, Arhar & Kasten, 2005, p.81). Action inquiry gives teachers an opportunity to conduct research and reflect upon their teaching practices using assessable, practical methods which can involve reflective input from an outsider. This type of inquiry allows teachers to become “professional problem solvers who are committed to improving both their own practice and student outcomes” (Mills, 2003, p.10). This model of action inquiry also allows teachers to continually interpret and reflect upon their behaviour in order to produce a more just and democratic teaching philosophy, practice and classroom environment.

As the researcher, I struggled to decide how to research this topic, how to collect data and how the data from the observations and interviews should be analysed. By collaborating with the project’s classroom teacher and incorporating two action inquiry approaches, the

research question could be explored more completely. The project maintained a level of relevance for the classroom teacher participant (and the students) which hopefully leads to improved learning experiences and develops the teacher's gender inclusive practices.

4.5 A collaborative approach

When studies adopt a collaborative approach within action research it generally means that the researcher (a teacher) is working with other teachers, or maybe a group of students, or even an institution. Each participant conducts their own research, and then the research outcomes are shared, reflected upon and then combined in a final report. However, in this project the collaboration of the researcher (me, as an outsider/observer) with the classroom teacher takes place throughout the entire research process.

Collaboration is defined a “willing joint labour towards the same end by two or more people” (Holly, Arhar & Kasten, 2005, p.297). This project finds a teacher and researcher working ‘towards the same end’ which is to uncover or initiate gendered and inclusive teaching practices, behaviour or language within a single classroom learning environment. Working collaboratively was the preferred research strategy for this project not only because it provided the teacher with an opportunity to receive an impartial outsider's opinion or perception on possible gendered qualities in their teaching practice, but also because it allowed the teacher to purposively reflect upon her teaching practices with an informed observer.

These intent of the approach is supported by research which found that teachers who work collaboratively experience the teaching process as “more enjoyable and stimulating, giving them new insights and experiences regarding teaching strategies, and [it] prevented the isolation that sometimes occurs when teachers work alone” (Salend, 2001, p.131). Collaborative research can be considered as valuable professional development for any teacher. Not only has this project been a learning curve for the teacher participant, but it has also altered my perceptions of my students and how I teach and deal with the hidden gender curriculum, therefore becoming a learning experience for the both of us.

Being a teacher and dealing with the many issues and requirements of this profession, ensures that there are many things that need to be ‘nuttled out’ and challenged. Working collaboratively to extract data as part of research is one of the most effective processes for teachers to learn about, and change, their work. It supplies support and an opportunity to share the load, consequently allowing them to become more productive. The participant teacher has the same approach to working collaboratively with colleagues, which has benefitted the research outcomes and made the collection of data more efficient and enjoyable.

4.6 Research procedures

This research project comprised several stages, the first of which began in May of 2005, when I began volunteering in the proposed research classroom one day a week. As a volunteer, I conducted the Early Years numeracy test, corrected students’ work, helped create learning experiences and displays, all the while interacting and forming relationships with the students and staff. I continued to volunteer within this classroom until I was offered a full-time teaching position in June 2006. The majority of the research was completed prior to me accepting that position.

While attending the school as a volunteer, I gained approval from the Department of Education and Training (DE&T) and the school’s principal and classroom teacher to conduct the research in the 3/4 classroom at the school. After my application was approved by the Royal Melbourne Institute of Technology (RMIT) Human Ethics Committee, I commenced data collection.

While the investigation predominantly involved the collection of qualitative research data, a small amount of quantitative data was also collected during the investigation. Therefore the project acquired data using the following techniques:

- Observations
- Field notes
- Interviews

Each fragment of the data collection process was interrelated, and aimed at uncovering information that would produce evidence to support the project’s findings. This concurs

with Yin's (1994) view that research should present a strong 'chain of evidence' to strengthen the validity of the findings. Therefore, deciding upon this particular chain of evidence is explained below.

1. **Observations**

There are two different types of observation; non-participant and participant observation. When researchers are participant observers, they interact with the participants and involve themselves in the participant's actions and conversations. Non-participant observers are required to be unobtrusive, neutral and remove themselves from the participants. Due to my voluntary work within the case study classroom, I had become a familiar presence. Therefore, this project will mostly adopt a participant approach within the action inquiry process. I was a participant observer during the opening observation sessions, and also after the learning experiences, so that I could listen to the student feedback and opinions of the lessons. At other times I took a role similar to a non-participant observer, in order to observe and collect data. I often found that by adopting this role I was able to observe more incidental moments, such as student conversations and reactions.

2. **Field notes**

These are written interpretations of observations which can be recorded using several different techniques, one of which is a free-style form of field note which is short, sharp and recorded as the events occur, and the second are lengthier narratives, recorded after the event occurs. Field notes are written to include differing details of the various responses and reactions of the project's participants (Emerson, 1995). However, "you can't physically record everything that is happening during an observational episode, nor should you try to" (Mills, 2003, p.55). This is why audio-recording is so valuable. I was able to record some of the events observed and follow up with subsequent notes from the remainder of the observations by listening to the audio-recordings at a later time. I wrote most of my field notes in dot point, listing only the bare minimum. During the transcribing process I was able to place the data into coherent sentences, as I did not wait long to transcribe the data, to ensure I did not forget any of the details.

3. **Interviews**

These are an essential part of any case study, as so many case studies focus upon the opinions of people and these opinions are usually extracted through interviews. These interviews then “need to be reported and interpreted through the eyes of interviewees who provide important insights and identify other sources of evidence” (Burns, 2000, p.467). However, there are factors that must be considered when conducting different kinds of interview. For example: “the time, place, and style of interviews with children are particularly important. Children are likely to feel uncomfortable if interviewed individually by a teacher in a classroom. They may feel as if they are in trouble, or may feel wary of being asked to divulge information about classmates” (Stringer, 2004, p.75). In-depth, open-ended interviews were utilised throughout the interview stage with both the teacher and students as they allow information to be obtained in a range of circumstances and settings (Minichiello et al., 1995). The research adopted one of Patton’s (1990) three suggested approaches towards collecting qualitative data by using the standardised open-ended interview. This approach is appropriate when a series of interviews are conducted to collect data, and detailed answers are required, rather than standardised ‘yes’ and ‘no’ responses.

The teacher and researcher also interacted on a less formal basis when planning the learning experiences being researched. These ‘conversational interviews’ had no specific line of questioning and were not lead by one particular person. However, these sessions did discuss and record the teacher’s approach towards gender and inclusion, to ensure that the learning experiences combined the teacher’s and the researcher’s opinions, expertise and practices.

The interviews conducted with the students were guided by a specific set of questions (Appendix One). The only variations between interviews occurred when language needed to be clarified for the children to better understand and provide answers to the questions.

4.7 Step-by-step research procedure

Although majority of the action inquiry process was conducted by the researcher and the teacher, the schools policies including student policies were also included in the research process. Each group was included to ensure multiple opinions and voices within the research outcomes, which will hopefully produce more well rounded and accurate findings.

The project was conducted following these procedures:

1. After the initial phase of attaining approval from the University and the school, I then attained the permission of the parents who had children in the classroom where the research was being conducted. Each guardian or parent was contacted through a (school approved) letter (Appendix Two). The letter not only asked guardians for permission to include their child in the research process, but also explained the study, confirming confidentiality and the protection of their child's identity by replacing names and keeping any identifiable indicators out of the report. Guardian approval was required as the students are under 18-years of age (Appendix 3). This stage was more difficult than I anticipated as I did not specify when the letter should be sent back, therefore a small reminder note was sent out two weeks after the first note. This ultimately resulted in twelve students being eligible for interview. Once I attained enough notes I began the research, excluding the remaining students from the interview process and simply recording observations of the children's reactions to the teacher's behaviour.
2. In each cycle, the teacher was interviewed a total of three times. The first interview took place before observations began which established a better understanding of the teacher's background, teaching beliefs and approaches, and also the teacher's awareness of gender and inclusive practices (Appendix Four). The second interview was carried out during the research process (after initial observation sessions) and explored how the teacher felt about the gendered and inclusive practices being implemented into the classroom setting or integrated into the school's curriculum. These responses were compared with the teacher's actions, attitudes and behaviour that had already been observed. The final interview explored the outcomes of the action inquiry process and how these outcomes may affect the teacher's practices. I will also explore what the teacher has taken from

the experiences. These interviews are aimed at answering the project's sub-questions, and were audio-recorded.

3. The research was conducted over 18 teaching sessions, and carried out over several months due to the constraints placed by our respective timetables. Each research session was a complete 1 hour session (coinciding with the classroom teacher's timetable) and the research did not include any specialist sessions. However, because gendered learning is present within all aspects of a child's schooling experience, I do not intend to restrict my research sessions to a particular time or to particular generalist subjects such as literacy, numeracy or integrated studies.
4. Throughout the first two research sessions I acted as a participant observer in order to interact and talk with the students and teacher. The study required that I record classroom interaction and activities throughout the entire research process. I observed the teacher's gender inclusive practices. That is, how did she approach gender, what language associated with gender did she use, how were her behaviour and interactions with students related to gender? I also observed the learning environment and reactions within this learning experience. These observations focused upon the researched outcomes of previous educational projects, all of which were influential in the creation of this research project, and highlighted imbalances within the teaching.

These research findings were:

- The tendency of teachers to adopt gendered language (Salend, 2001).
- Discrepancies in the level of feedback or encouragement teachers give to male and female students, praise or encouragement is an unpredictable phenomenon as it can quickly move from beneficial to harmful, for if it is overused "a girl may either become praise-dependent and require constant affirmation and approval or become indifferent to it" (Hartley-Brewer, 2006, p.viii). Yet according to Oxfam "some of the reasons why girls encounter learning problems include the low expectations of teachers regarding their intellectual abilities, coupled with a low level of feedback from teachers" (2007, p.29).

- Inconsistent allocation of time, tone of voice and eye contact. That is, not providing females with the same amount of time to answer questions as male students, using a different tone of voice when dealing with male and then female students and making more eye contact with their male students (The Association of American Colleges 1996).
- According to Sadker & Sadker (1995) “teachers may unintentionally direct questions more to children of one gender or race than to those of another. Attention, questions and praise may be distributed on the basis of which students the teacher likes or where the students happen to be seated in the classroom” (Sadker & Silber, 2007, p.266).

Therefore, while observing the teacher and classroom I was attentive to the following questions:

- a) Does this classroom teacher incorporate gender biases or stereotypes into her practices?
- b) Are boys or girls listened to more carefully or differently?
- c) Are boys or girls given more feedback?
- d) Are the students’ surrounded by gender inclusive materials and language?

Each question was explained and discussed with the teacher during the second and third interviews, for some of the teacher’s actions may be unrelated to gender, and the teacher was given an opportunity to justify and clarify her actions. The observation sessions were also audio-recorded and documented manually, or recorded statistically.

This was a collaborative project and I did not wish to disrupt the classroom. Therefore, the learning experiences that are the focus of this research project either incorporated certain objectives into an already planned curriculum, or were created using the knowledge, approach, attitudes and philosophies of both the teacher and researcher. In order to effectively plan these learning experiences, time was set aside to provide an opportunity for the teacher and researcher to discuss ideas, approaches and deliberate on any aspects of the project’s process, or observations (‘conversation interviews.’)

There were sixteen learning experiences in total, divided into three separate foci:

- four sessions on the learning preferences of females,
- four focusing on the learning preferences of males, and
- eight focusing on incorporating inclusive practices. The content of these sessions were negotiated depending upon the research subjects requirements, however, an example of the research structure is as follows:

The learning experiences were built around the idea that generally males have a more-developed right hemisphere in the brain and therefore males can be more visual, kinaesthetic (more hands-on), spatial-mechanical, have a heightened sense of sound and attain perspective with greater ease. A considerable amount of research indicates that boys also seem to perform better in co-educational environments, and so all four male centred sessions involved both male and female students.

Girls generally have a more-developed left hemisphere of their brain and therefore females can have a greater facility in language, logic, analytical thinking, sequencing and timing. It has been said that females use double the amount of words that boys use. At a young age girls also have a heightened memory in comparison to boys, and are more inclined to utilise fine motor skills. Therefore, these sessions were planned to involve language and shaping ideas. It is also said that females perform better in single-sex environments, so during female focused sessions, females were separated from their male classmates. However, to attain a comparison there was a session that focused on female learning styles that included male students.

From these sessions, the researcher and teacher analysed and compared what was successful for both sexes and integrated those aspects into the following inclusive learning experiences. The eight inclusive sessions involved activities that encouraged children to work cooperatively, learning about and appreciating the strengths of each person. These sessions will involve inclusive materials, providing images of both men and women involved in activities or occupations which were not gender specific or stereotypical. The learning strengths of each individual child were considered. All children were included in class discussions and be supplied with an equal amount of encouragement. For example, in one of the inclusive lessons, the class was studying Australian history and we decided to combine maths and integrated studies, while also

integrating many of the qualities of an inclusive practice. Therefore we wanted to encourage more female role models in the curriculum, especially in mathematics, as so often children are predominately presented with male (and historical) role models. While men in mathematics are well known throughout history, women too have been doing great things throughout history and it only required a little more hunting to find these pioneering women in mathematics. Consequently, the lesson focused on Mary Everest Boole a mathematician who focused on angles and trigonometry.

In another inclusive session persuasive writing was focused upon. The participant teacher and I decided to set children the task of reading two newspaper articles, which discussed the merits of single sex and co-educational classrooms. Consequently, the students were to then form an opinion and write a letter to the school council, convincing the council of either opinion; that is, why the school should have co-ed or single sex classes? This brought about some interesting discussion, for example the class discussed the dynamics of a single sex class where a girl asked “would single sex classes have the same sex teacher”? They also discussed gender stereotypes when a male student stated that ‘my sister is at Pascoe Vale Girls and at the rock eisteddfod they have a male teacher co-ordinating the dance and backstage’. They discussed aspects of individual sections of the article such as the benefits or disadvantages of males and females working separately and apart. These conversations then led to the issue the teacher was initially concerned about: how the boys dominate the conversation. Not surprisingly, a boy in the class disagreed with this and believed that girls dominate the conversation, yet he gave little explanation for why.

1. I observed how the students reacted to these approaches, and while the students completed their activities I asked the students for their feedback and opinions on the lesson. Their responses only rarely mentioned gender, which made me further question the absence of gender discussions within the curriculum. Was this the children’s naiveté or is gender so deeply hidden that teachers do not feel the need to acknowledge and foreground gender within class learning experiences? The students’ reactions and each of the learning experiences were audio-taped to allow me to review the sessions in more detail at a later time.

2. Before the third research session, I conducted the second interview with the teacher, discussing the context of the initial observations sessions, questioning how she felt she addressed gender and incorporated inclusive practices. The interview also allowed the teacher and researcher to discuss gender in a broad sense and many of the research projects mentioned throughout this project were discussed in considering which direction the research was to take next and why.
3. Student interviews began after the observation sessions were complete. Each student who received permission to participate was interviewed individually, for a maximum period of 10 to 15 minutes. The students were asked the same series of questions and if required the questions were altered slightly to ensure the students understood the question. These interviews provided an opportunity for the students to discuss their awareness of gender with the researcher asking questions aimed at revealing their understanding of gender roles, expectations, stereotypes and biases within the school culture, either through discussion or illustration. The parent's permission slips were sent out several weeks prior to beginning observations and I was able to attain a number of student participants (twelve).

The student interviews were conducted within a fully supervised environment. Yet as they were not to interfere with class time, the interviews were carried out in an open-office near the staffroom during recess or lunch time. The interviews were carried out individually, as I did not want the student's opinions to converge through collective responses. Also it has been suggested that when boys are interviewed alone they can express different views to when they are under the influence of a group (Gilbert & Gilbert, 1998). I also aimed to make students feel as comfortable as possible, and free to express their opinions away from the distraction of the class, or to feel pressure to conform to any expectations they may anticipate from the presence of their teacher. In my experience at this age (grade 3/4) the students still seek your approval and may say things to spare a teacher's feelings or are driven by not wanting disapproval. I also explained to the students that the content of the interview would remain confidential.

Interviews were audio-recorded not only to allow me to review children's responses at a later time, but I also did not want to interrupt the interviews by

having to manually write the interviewee's responses. Consequently, I sought to do as Minichiello et al. (1995) advised and create "a more casual and less intimidating environment... [to] allow full attention to be directed to the child" (p.99). The student interviews followed a basic guide, with several standard questions. As stated previously many components of these questions needed to be clarified before a response was given, and therefore there was some rewording of some questions, yet this was mostly just simplifying the language. After each interview time was allocated to record any notable actions, or behaviour exhibited by the child.

4. The final teacher interview was a reflection on the research process: reviewing what the project uncovered, whether these findings would have a permanent effect on the teacher's practices, or the school's curriculum, what was or was not effective, and what would be done differently if the project was conducted again. The records from the student interviews and any records which included identifiable information, are protected by privacy and ethical policies, and were not made available to the teacher (the audio-recordings were transcribed and excluded identifiable characteristics, the teacher did not have open access to these sources). Consequently, generalisations were used in sharing the outcomes from the interviews, yet I was very candid with the observations and data I extracted from the teacher's behaviour. All of the project's outcomes (observations, interviews and data) were made available only to the teacher, the school principal and my university supervisor.
5. The final stage in the research process was the analysis of the observations, interviews and field notes. This involved collating quantitative data and analysing what was observed, to form final and justifiable outcomes.
6. Once the thesis is complete all audio recordings, raw observations, and data sets will be destroyed as described in the ethics applications to RMIT University and the Department of Education and Training.

4.8 Research participants

4.8.1 The teacher

The teacher 'Jane' is a 30 year-old female, who has been teacher at the focus school her entire teaching career. Her interests in teaching are indigenous studies, literacy and gender. She has eight years of teaching experience and at the time of the project was the head of the Early Years Literacy and Numeracy Program at the school. In 2007, she participated in a study on Literacy in the Middle Years' and in 2008 took up a consultant's position within the Department of Education. Jane's openness to new and innovative teaching strategies, made her well suited to this type of (action inquiry) research. Jane's classroom was an interesting learning environment, and offered a creative curriculum, incorporating theatre sports, investigative projects and artwork in a majority of her planned learning experiences for the students. Jane is extremely explicit with her instructions, yet allows her students to take creative licence in the tasks they complete. She had recently completed a TPL project focused on Literacy and Boys. Initially this was a concern because of its potential impact on her opinions on the focus questions for this research project. However, when asked if she would be more conscious of the boys, she said that the TPL project had made her more conscious of what she was doing with the girls, probably because she was concerned that the girls did not express themselves enough and that they stopped putting their hands up to answer questions because the boys call out more. Therefore, she was trying to address those issues as a group rather than focusing specifically on the gender, and she did not appear to be very confident about making progress in remedying these issues. She was very conscious of the gender imbalance ratio within her classroom and concerned about the boys become an overwhelming force within the learning environment.

4.8.2 The students

The case study classroom consists of twenty-seven children, eleven females and sixteen males, aged between nine and ten, all of whom are Australian citizens (with Anglo-Australian, Aboriginal, European, Turkish, and Asian backgrounds). All of the students spoke English as their first language. Students called Jane by her first name, which is how the students refer to most of the other teachers within the school, rather than using the courtesy titles of Miss, Mrs, or Mr. The children appear very comfortable with visitors,

because as Jane is a pre-service teacher mentor there is a regular flow of student teachers throughout the school year. The group as a whole appears a little disconnected, which has been something that Jane has been a little concerned by as she had not come across this sort of division before. Although there are no major issues, there is very little social interaction between the genders. I initially wondered if this observed behaviour was going to impact upon this research project, but maybe it simply displays the fragile yet significant role gender plays in any given classroom at this level.

4.8.3 The classroom

The study was conducted in a composite 3/4 classroom at a Primary School in the north-western suburbs of Melbourne, Victoria. The classroom was a warm, colourful and inviting portable, with spaces to read casually and lots of space for large group activities on the floor. The classroom had several examples of children's work on display, but also contained number and sound blend posters. It was in close proximity of the other 3/4 classrooms, yet void of much technology (with only 3 working computers). The children are arranged in no particular order at their tables, other than a few who are located at a specific seat due to behaviour or their tendency to plagiarise. There is a well worn small couch in the corner and a shelf full of mathematic and literacy resources (i.e. dictionaries, MAB blocks, calculators etc). These physical qualities are supposedly in keeping with a 'girl-friendly' classroom, which is "safe, comfortable, welcoming place" (<http://www.singlesexschools.org/research-learning.htm>). However, I found that all of the students enjoyed this style of environment, as they liked sitting on the couch, and they all utilised the resources without prompting. They also took pleasure in decorating their classroom and were friendly in welcoming not only other teachers into the classroom but visiting students. Yet the teacher's attitude to these things was so positive and she motivated and encouraged the children to adopt this approach.

The classroom contained mostly gender neutral materials, other than a picture hung behind the teacher's desk, which represented the traditional ideal of a female child: blond hair, skirt, clutching a teddy, surrounded by stereotypical female images such as a rocking horse and flowers. The books on display around the classroom are based on the school's 'You Can Do It' program to courage, fairness and respect, all of which exhibit non stereotypical characters and scenarios. All of these qualities are extremely inclusive and

presents non-typical images for the children to adopt unbiased images of friendships and families

4.8.4 The school

Maple Leaf Primary is a relatively small school in the inner western suburbs of Melbourne (within the Moreland network of schools). It is marginally, a multi-cultural and middle/working class school that contains a minimal amount of single parent families. It contains only composite classrooms (other than Prep classes), with between twenty-five and twenty-seven students in each, but like all Government schools its Prep to Year Two classrooms have to have an average class size of nineteen children. Maple Leaf Primary School has thirty-five staff (including integration and administration staff) and there are six male staff members, which is more than the average primary school, as the Principal is considered a male teacher head hunter. The school is undergoing a large renovation in becoming a 'School of the Future' and consequently the school resembles a construction site, which has completely restricted the children's playing areas and has also separated the research classroom from the main building. As stated previously, the school is also in the process of overhauling its strategic plan and therefore is altering the academic direction the school will be taking in the future. This has created a considerable amount of change for the staff (with professional development, approaches towards assessment and reporting) as well as consequent influences on how the students learn.

Chapter Five

Research Findings

5.1 Initial observations

As previously stated, upon walking into the 3/4 classroom at Maple Leaf Primary, the first thing that struck me was the dynamics between the children. All the boys appeared to be huddled together, more to the back of the available floor space, and all the girls were spread across the front sections. There was an obvious gender divide in this seating arrangement. The children were not unkind to each other; quite on the contrary, there was an air of friendliness between the children. However, this kindness did not appear to flow well across the genders, with the apparent friendship groups being clearly single-sex. I quickly discovered that the gender separation was a constant occurrence and the teacher was aware of this prior to my observation. Jane was quick to discuss this with me after just one of the scheduled observation sessions. Another concern for her was that the male students were over-powering the female students, but I did not witness this during my initial visit (but that is not to say that it was not occurring). However, I did observe noticeable competition between boys and girls, which was the subject of observably the only conversation taking place between the sexes. My initial observations were essentially only a fragment of the time that the teacher spends with her students in any given day.

During the initial observations I noticed how the teacher's language and behaviour was directly connected to the students' gender. For example, during the questioning/sharing part of that lesson, the teacher made a comment about the number of boys who had raised their hands, followed up with encouragement directed specifically at the boys. This was pertinent given that later in the session some negative remarks were directed towards a group of girls, disciplining them about the lack of work being produced, using the term 'nuffy' to describe the behaviour they were exhibiting. The remarks influenced the girls' perceptions of themselves because I observed one of the girls encourage the other group members by saying "...we don't want to be the nuffies"! The group seemed to be quite distressed by this discussion and, although it worked as a motivational tool, they completed the task with a noticeable air of misery. A group of boys behaving in a similar

way, and who in the end produced similar outcomes, did not incur the same reaction or sanction from the teacher. This was not the only teacher behaviour witnessed that targeted the girls, for although there were very few behavioural issues within the classroom, it appeared that more of the female students' off-task behaviours were being managed in a public forum. However, overall, there were also many instances of encouragement along with an attitude of openness and acceptance in the classroom.

My initial observations raised many questions, such as: why does the teacher have different expectations for female and male students' behaviours, and why are sanctions communicated in different ways to girls and to boys? Consistent approaches to learning, assessment and behaviour management are aspired to by most, if not all, teachers. The evidence of these differences, as my first impressions of the class, provided impetus and direction for formulating the first stage of the research project.

In these initial observation sessions, I observed lessons on the topic of multiculturalism with a focus on the book *Boy Overboard*. Most of these observed sessions involved a large amount of brain storming and discussion (such as creating a mind map on the board) which has been found to be a preferred learning style of females. However, observing the teacher prior to these sessions utilising a variety of thinking tools, a style of teaching that she herself prefers to use, the children were always encouraged to think 'outside the box'. For example, the children were expected to try to understand why people need to leave their country (war, famine, disease etc) and the process and emotions they go through to get to safety. The students' discussion was guided by the teacher, but they displayed enormous insight given specific questioning, and also produced perceptive questions. Many of the discussions I observed during other subject areas (numeracy and literacy) were also guided by the teacher, and they too produced worthwhile and meaningful discussions in each case.

During these observations I was not a participant, only an observer, and I tried to restrict the amount of discussion I had with the children throughout the observation phase. Although I had come into contact with the children prior, through my volunteer work in that classroom, my role was more behind the scenes and restricted to conducting low-level logistic and assessment tasks. Although the children were aware of my presence, I had very little interaction with them. However, this invisibility was not ideal for the students

gaining the level of trust in me as researcher that I would need for conducting interviews at a later stage of the research project. Therefore, I felt that I was walking a fine line, wanting to become an invisible observer, but also trying for some connection with the children (as experience told me that I would be more successful in accessing their opinions if they had formed some relationship with me). Therefore, I was worried that I was heading into the interviews 'cold', meaning the children were more cautious of me than I would have liked.

Prior to, and after, each observation session Jane and I would discuss the purpose and direction of the project and this led to insightful discussions about the class, the students and her teaching. Although I felt that I was well prepared to plan the research focus sessions after my initial observations and conversation with Jane, I was careful not to mention what the nominated research focus sessions would be. I did not want Jane to be too conscious of the nature of my initial observations before the research began as I was trying to observe her and the class in a pre-action-inquiry state. Following the initial observations, explicit discussion and planning occurred prior to the commencement of the research focus sessions that will be described later in this chapter. Fortunately, my initial observations and the follow-up conversations reinforced how interested and supportive Jane was, as the action inquiry participant teacher in the project, and how open she was to new and often confronting feedback and methods of practice.

5.2 Designing female focus research sessions

We decided to begin by concentrating on female, single-sex focused sessions with so-called female preferred learning styles incorporated into specific class sessions to be taught by Jane. She was well briefed on each of the foci and the rationale based on the informing research. She was also aware that these sessions would be observed to give a basis of comparison between the findings of prior research and her Year 3-4 classroom setting. Not only was I to observe her practice but I would watch and count how often she called upon boys and girls and how much encouragement she gave to each gender. However, this quantitative data was not discussed in any detail with her at any time in post-session conversations as I did not want her to become too conscious of this aspect of what she was saying or doing.

The foci for the female focused research sessions that were discussed with the teacher (Jane) prior to the class, and then observed to generate data for my project, were as follows.

- Single-sex groups

Implementing single-sex groupings allows girls time to interact with the teacher without their male counterparts, time to build their confidence (Leder & Forgasz, 1997) and experience more freedom and comfort within their learning environment (Williams, 2005). Robinson and Gillibrand (2004) found that “girls do better in certain subject areas such as mathematics and science when boys are not in the class” (cited in UNESCO, 2007, p.3). Girls will be observed in single-sex groups when working with the teacher.

- Encouraging female styles of learning

It has been said that females flourish when speech and memory cues are incorporated into learning experiences (Geffen et al., 1990; Sadker & Sadker, 2007). Given that females have more advanced verbal abilities, speeches or presentations and share times may produce beneficial outcomes (engagement and motivations) in the single-sex female focused sessions. Based on this, it will be preferable to observe sessions in which girls be given opportunities to use flash cards in game form, or an opportunity to utilise cue cards to develop skills of identification and classification.

- Incorporating more language into learning experiences

According to an association for single-sex public education, girls are more accustomed to lecture-style teaching due to their ability to ‘stay still’ for longer periods of time. As stated above, and elsewhere throughout the thesis, females have an innate preference for language and can use more words per minute, have greater writing capabilities, and can memorise words with great proficiency.

- Learning experiences to require more fine motor skills

Studies such as those completed by Nicholson & Kimura (1996) show that girls are better at tasks requiring fine motor skills manipulations (Sadker & Sadker, 2007).

- Tasks focused on writing

Halpern (2004) showed that more girls have advantages in tasks that have an emphasis on writing and require proficiency in skills for writing. Girls have been reported to score better than boys on tests of capitalisation, punctuation, comprehension and language usage (Sadker & Sadker, 2007).

5.3 Findings from female focus research sessions

The first female focus session began with both the boys and girls on the floor reviewing the concept of 'time'. During this class session I asked the teacher to adopt the above approaches. There was very little encouragement given to either sex compared to what had been noted in the initial observation sessions, but this time teacher called upon female students more often (even when they did not have their hand raised). This was a deliberate ploy to engage the girls and the teacher and I discussed this aspect before the lesson commenced.

When it was announced to the class that the teacher would conduct a focus group with only female students, there was (surprisingly) little reaction. The boys simply left the floor to complete their task without any questions or comments. The girls immediately became more 'chatty' and they were open in admitting what they did or did not know, or understand about what was being taught and how they were to complete their task. I had not witnessed this level of enthusiasm prior and it appeared that some girls had a change in attitude to the task.

For this initial learning experience we (the teacher and I) created a different 'time' task for the boys to complete as this seemed to be advantageous for this project. The girls did not appear to be pressured learning separately, especially when compared their learning behaviour during the initial observation sessions. The girls did not need to compare or monitor themselves against their male counterparts, as there was no need due to the different tasks being undertaken. Throughout the lesson the girls talked over each other, asking questions, and were keen to work. The teacher was very explicit, using scaffolding questions and emphasising specific components of the questions. She used visual materials

such as the small, individual clocks based on the view that females learn best while watching and feeling or doing and thinking (Philbin et al., 1995). They seemed to respond positively to the single-sex focus session and to the encouragement the teacher was handing out.

The second female focus session was the first of a series of lessons planned by Jane to inform the school community of what her grade had learnt about the affects of global warming. In planning, she and I discussed how we could create a task that was infused with an intent and direction to cater more for the female students. We agreed to construct single-sex groups of three students that would create a written checklist that was to be transformed into a poster and then presented and explained via a written speech. Each group was assigned 1 or 2 grades in the school in which to present and speak about their poster. The speech component was included to utilise the female preferred learning styles (described above) with an emphasis on language, memory, and visual skills. However, the first of the series of classes was devoted to organising the groups, brainstorming and discussing the different effects of global warming (this was a verbal and visual focus). The children finished this first class in the series by writing their checklist. The following focus sessions continued to develop the global warming presentations, yet at the beginning of each session a different step was included that was again female centred.

The third session had activities that were focused on sentence structure, punctuation, and creating cue cards for the presentation (again utilising a verbal and visual emphasis). The session began with time on the floor with the teacher leading a discussion, displaying examples, and providing questions she wanted addressed in the presentation. She was explicit about how the presentation was to be structured and how the cue cards were to be utilised.

However, this session morphed into something counter-productive that saw the teacher express disappointment about the children's checklists and posters. Jane identified problems with specific components of the work samples, in public to the whole class, and many children were quite upset by these statements.

After the lesson Jane and I discussed what had transpired and she insisted that she would not have normally approached the issue in that manner. During the lesson I did not

observe her notice groups that were ‘mucking around’ and these feelings united in a flurry of frustration. Reflecting on this conversation made me question aspects of the session and the working in groups; that is, did the single-sex grouping of the children encourage distracted behaviour? Or, would mixed-gender groups only emphasise the social divide I had previously observed with this group of children and therefore bring out the calming or dominating personalities in the classroom? In regards to the teacher’s behaviour I began to question the frequency of Jane’s criticisms and the manner in which she goes about it. She has such a big influence on the children and they seem so eager to please her. However, as I have stated previously Ramon Lewis claims that teachers’ hold 50% of the variance within the classroom, as teachers we must respect this responsibility and understand that our actions have and convey strong meanings to our students (personal communication, February 24, 2010).

The final of the female focus sessions involved them either practising their presentations or carrying them out in the other grades. Before this session the teacher and I discussed and created a focus for the students to learn and identify the components of conducting a speech and what skills we wanted them to employ, including the use of cue cards (by utilising memory skills). This was an interesting session as it appeared that it was not only the female students who responded well to this style of learning (focusing upon memory, by using visual and verbal preferences), but male students also experienced great success and were noticeably engaged throughout the entire session.

Jane embraced and clearly included the described leaning styles in the lesson. She acknowledged that there was some difference in the way the children were responding to these teaching/learning techniques and that the introduced sessions were beginning to permit her to identify the role gender plays within the classroom and present insights about how she might change the classroom to cater to not only each child’s skill level but also their gender.

I wanted each of the foci to be given an appropriate amount of time to be observed properly and allow each focus to unfold naturally and take effect. However, due to the limited time given to session three (due to other incidental learning that occurred) I now consider the third and fourth session to be one lesson (or session in the project). While observing the children during the sessions, I noticed (surprisingly) that the female groups

were more willing to negotiate, or assign jobs and share tasks more equally. The teacher noticed significant differences between the male and female group presentations. Not only were they aesthetically different, but the context they choose for the presentations were different. That is, the girls focused more on the outcomes (or the emotional side) of global warming such as when they said that “animals will become extinct, [and] our houses will be ruined’. While boys’ groups were very unequivocal in providing solutions; for example, when they said that “we need to turn off our lights and not waste energy so that the hole in the ozone layer doesn’t get bigger.”

The final female focus session took place within a mathematics lesson, which will not only provided more indication about the focus outcomes, but also allowed me to observe any differences between subject areas; that is, did the subject alter the teacher’s behaviour, preparation or teaching method? This final focus session involved male and female groups completing the same learning experience. Again, I was able to observe whether there were any changed or different behaviours.

During our pre-session discussion, Jane was again asked to call upon more female students during question time and to concentrate on providing female students with ample time to answer. Research conducted by the Association of American Colleges (1996) had found that female students tend not to be given the same amount of time to answer questions or think through problems and I wanted to ensure that girls had time to engage and respond during this particular session. The lesson was about decimals and fractions and to ensure these mathematic problems were more female friendly they were written and based upon real world situations involving money, football and computer games. This was in order to display meaning and to place the mathematics in a context, as mathematics was not this classroom’s strong suit (in general terms). However, by supplying the children with problems having multiple layers and requiring various processes, we hoped that this would bring into action outcomes like those from Halpern’s study (2004) that discovered that “female advantage in quantitative tasks in early elementary school may derive from the fact that the early math curriculum involves learning math facts and arithmetic calculations... [and] rapid retrieval from memory which is an area where females have been shown to have an advantage” (Sadker & Silber, 2007, p.30) and therefore show up in the group’s confidence in their approach to mathematics.

In the task, the girls were allowed to work together to unravel the answer. However, the girl's confidence did not increase within a single-sex focus group and some still seemed to not want to share their opinions or answers. During this session the all girls' groups were separated from the boys and had their own separate introduction to the activity. Throughout there were examples of behaviour that I had not observed before. At times, the girls were very supportive of each other at times, but at other times they were quick to criticise each other which went unacknowledged by the teacher. Jane offered support to the girls throughout the activity, which many took advantage of by spending substantial periods of time gaining clarification, or positioning encouragement by showing Jane their work. There did not appear to be competition between the boys' and girls' single-sex groups even though they had the same task and were within listening/talking range for the entire lesson. This was an interesting outcome when compared to the initial observation mathematics session that had been riddled with competitive snipes between boys and girls. Jane does not usually encourage this type of competitive behaviour and for it to be present in mixed-groups but not in single-sex separable tasks was interesting.

In reflection, Jane was astonished about the difference between her 'normal' mixed-gender lessons and these female single-sex focus sessions. In our post-session discussion, Jane said that she wanted to plan for these sessions again to ensure that students felt just as comfortable as had occurred during these sessions. She felt that in this instance, many of her female students did not 'fly under the radar.' However, I did not observe signs of noticeable changed confidence for the girls while they were interacting within the single-sex groups in the lesson. But, in our post-lesson discussion Jane said she believed that if the absence of competition was a more regular occurrence then these students would come 'out of their shell' more and more. Later, this was confirmed as she did notice some improvement. Although I did see differences in amount of discussion generated and excitement levels, I did not assess this as a major change. While the outcome of the students' learning was not (and could not) be measured in these activities, I did observe change in Jane's teaching behaviour during these sessions. For example, she seemed more relaxed and patient, her tone of voice was different, and she revelled in the discussion the group generated. The students were receiving different messages from her and they were responding differently.

At this stage of the research, Jane expressed surprise at her levels of encouragement and how it differed between male and female students (and that she was encouraging more individual boys than girls). Even though we discussed these observations extensively and we agreed that she was to become conscious of seeking a more even distribution of encouragement, this had no effect on data observed and collected from these sessions as males continued to receive more positive feedback and encouragement. However, the first two female single-sex focus sessions did see Jane call more often upon female students, but during the two last sessions she called upon girls less and she returned to calling upon the boys more than the girls. This data also surprised Jane and although she recognised that her style had been to direct attention to particular boys, she was not aware that it flowed significantly into other components of her classroom management and interventions (as teacher) in the learning.

5.4 Designing male focus research sessions

We discussed the following research-based findings about male-centred learning foci in order to determine how to conduct single-sex boys' activities and strategies in lessons as part of the second phase of our action inquiry research.

- Being very visual during lesson introductions

Males respond well to visual stimulation, efficiently detecting movement (Halpern, 2000) and learn best when thinking and watching (Philbin et al., 1995).

- Using concrete materials

Concrete and visual teaching aids are enjoyed by and effective with boys; such as movable clocks, protractors that ensure some hands-on activity in mathematics.

- Incorporating humour

The introduction of humour into explanations and routine aspects of learning has been argued engage male students more effectively (West, 2001).

- Ensuring experiences are challenging, realistic and kinaesthetic

Allow boys to get up and move around and avoid learning that is experienced as static. Learning for boys should emphasise movement and outdoor activities which draw on male qualities instead of ignoring them (Biddulph, 2002).

- Mixed gendered groups

We compared studies of single-sex and mixed groups for outcomes conducive to boys' learning. Much of this indicates that males work more effectively in mixed gendered groupings, or that there is no evidence to show that boys' performance is enhanced in single-sex schools (Ivinson and Murphy, 2007).

5.5 Findings from male focus research sessions

The initial male focus session had a maths focus on angles and we decided to create a lesson that was hands-on, incorporated humour, utilised concrete materials and included a more active (dynamic) approach, as suggested by the distillation of research literature above. Consequently, the students were required to create angles with their bodies and utilise concrete aids such as protractors. Before the activity began there was an introduction and explanation about angles and their measurement. Into this, Jane incorporated some humour by using amusing puns in her information about angles. The boys did appear to respond to this, some joining in on jokes (but, maybe a little too much). Jane asked several students to draw different angles using the data projector, but asked mostly males to do this to keep the boys engaged and for it to be a fast moving learning experience. The students then drew these angles into their exercise books with a protractor before going outside to physically create these angles using their bodies. There was an immediate positive reaction to this type of activity by all the students, but possibly more evident amongst the male students. There were immediate comments, such as on the way outside when one boy called out to the teacher that "going outside is fun, the definitions was the boring bit, now it's the fun bit". Before the students began the work of creating angles with their bodies, the teacher separated the children into groups of three (single-sex groups in order to make a comparison later.) The students worked well together and the teacher went around to groups, discussing the angles they were creating and talking about what to do next. The class then came together to share and reflect upon their body angles. During this time the teacher made several gender specific comments, chosen to

specifically encourage the boys, such as “the boys are being more creative than the girls”. When one of the female groups was reluctant to share their angle with the grade, the teacher’s mode of encouragement was to say “come on girls it’s easy”!

For the second male focus session, after reflecting on the activity with boys in single-sex groups, we sought to create the possibility of comparison by observing boys in mixed-sex groups. This second session focused on persuasive writing, and although this is purportedly not a preferred approach to learning for males we were seeking a source of comparison. That is, if we channelled the interests of boys in a writing session would it make a difference? Therefore, the teacher and I incorporated the following male-centred approaches into the session.

1. We made a focus on real world and contemporary issues
2. We made the introduction and explanation of the task extremely visual by using mind maps
3. We introduced kinaesthetic components

The session revolved around reading and identifying persuasive writing in two newspaper articles about children’s eating habits and teenage smoking. Jane read the article to the class to ensure the focus unfolded swiftly. She then wrote the following questions on the board:

- “What side of the argument do you think the writer is on?”
- “What suggests this?”
- “How do you know?”

The discussion began and the teacher introduced a ball to be moved around the room as a strategy to identify whose turn it was to speak (that is, if you hold the ball you can have your say.) This involved a kinaesthetic activity that was to encourage boys to join into the class discussion. With each response, the teacher questioned their opinions and challenged them to think more deeply. At the beginning of the discussion only girls put up their hands to receive the ball, and the male students mostly appeared either distracted or disinterested. However, after a several calls for order and interventions from Jane, the discussion began to gain momentum and the mind map on the board became very detailed (ensuring that the discussion was also strongly visual). Although the boys did seem

distracted and the girls appeared keen, Jane called more often upon males to join the discussion. She also provided encouragement for her female students during this session, even though it was focused on engaging and involving the learning of the boys.

The children were then given a second article in which they had to decipher the persuasive language and the purpose of the article on their own, while also deciding what side of the argument they adopted. Although this session included all students, in the second component of this lesson Jane took a boys-only focus session on the floor, where they discussed their points of view by following her prompts, such as “why would have the author said that”? Again, she consciously integrated humour and made concerted efforts to interact with those boys during that on-floor learning experience. At the end of the session the teacher and students shared and reflected on their thoughts and ideas about what had happened.

Throughout this final part of the literacy session some boys were distracted and it was not the only time throughout the lesson that some were disinterested in the lesson despite our best intention to cater for their learning on the basis of the research points listed earlier. It appeared to work well for some boys but not as well for others. In our post-session discussion, this led us to question whether subject choice was impacting upon the engagement of the students as much as the other factors about male preferred learning dimensions. The boys were involved and interested throughout the mathematics lesson, but less so during the literacy session. However, Jane was happy with the outcomes from this session during our reflection time, despite the level of distracted students. Finally, as observer, I did not notice any discernible change in her teacherly behaviour between teaching mathematics and teaching literacy other than through the specific interventions that we had planned. That is, she provided the same amount of enthusiasm and appeared equally at ease and relaxed throughout these sessions as before.

The third male focused session again involved persuasive writing, and once more we wanted the session to be meaningful, mixed gendered and kinaesthetic, but more engaging than the last literacy session. In planning for this, we decided that the students would be required to choose an issue within the school, to form an opinion about it and write a persuasive piece presenting that opinion to others. For example, they could write about things like having access to more sporting equipment, not wearing uniforms, or opening a

canteen at the school. They were given a very humorous and vibrant description of their task, before they were placed into mixed-gender and ability groups. Groups were able to move around the classroom to ask others for their opinions of the chosen issue, before each group collaborated to write their collective point of view.

As observer, I was surprised by children's reactions to this task in these mixed groupings as, in some, boys within the groups that contained more females allowed the girls to complete all the manual tasks and drive the direction of their writing piece. Whereas, when the boys outnumbered the girls they dominated the task and did not allow the females to contribute as much. In those groups, the girl in the group received an amount of banter. Jane noticed this and stopped the class to tell the children to work as a team and that all had to contribute the writing task. This intervention only had a short term effect and they quickly slipped back into the earlier patterns. The number of students present meant that there was one all boys single-sex group and that group worked efficiently and appeared less distracted and more focused at the task at hand.

My assessment of what I had observed was that this style of teaching was close to the teacher's normal – prior to the project - method of teaching as the humour and interactions were very natural and unaffected (compared to some of the other sessions we had planned). During our reflection time, I drew her attention to a relative lack of action taken to ensure or enforce different behaviour within the groups. We discussed the children's tendency to assert gender dominance in mixed groups whether that should, or could, have been dealt with in a different manner. We concluded that despite efforts to discuss and model 'fair' behaviour in the groups the students' gendered interactions had not altered other than when directly managed by Jane.

The final male focus session was another mathematics session, this time it was based on the children working with descriptive (or worded) mathematics problems. The teacher introduced the task using visual aids and concrete materials taking into account the finding from Philbin et al. (1995) that males learn best when thinking and watching. The aids and materials were utilised in order to assist the children better understand the relatively new concept of numerous answers (or open-ended responses) to maths questions. The children were quite engaged throughout this lesson as it was something new and challenging, and a competitive vibe reappeared within the classroom. Again, the students were grouped into

mixed-gender groups and asked to solve several open-ended problems. They were allowed to use calculators to check answers and to venture into an environment in which they felt more comfortable. As a result, many of the groups opted to work outside the classroom. This worked well for some groups, but less so for others, and several groups became quite distracted simply by being outside of the classroom.

Once again Jane easily integrated humour into her teaching when dealing with the male students. In fact, she was quite comfortable utilising these modes of teaching and focusing on males. As she stated in her later interviews with me, she felt that she had begun to feel more at ease teaching in these supposed preferred learning styles and she was drawing upon what she described as an innate dynamic with male students. However, on my observations, during these sessions she provided little feedback or encouragement to her male students, yet this did not appear to make a difference in the student's behaviour or work quality. Nonetheless, the boys were consistently called upon more than their female counterparts. Is the attention given to the male students enough to compensate for the lack of received encouragement? It appeared that the boys did not receive an even amount of (additional) encouragement as this was not mentioned during their later interviews with me.

Overall, the male focus sessions produced conflicting results. It did not appear that the boys worked better in a mixed-gender environment, yet they did sometimes seem to work more effectively within a single-sex grouping. How we approached the learning experiences and how Jane introduced the lessons appeared to engage and excite the boys (in three out of four experiences.) Again Jane was happy with the outcomes and she stated that she would give more consideration to how she grouped students in the future after witnessing differences in the quality of work and behaviour. She also went on to carry out several sessions on effective group work with her class, after witnessing the dynamics of the single-sex and mixed groupings. Despite the variable results in teaching to the factors that had been identified from the research literature, these comments about the importance of gender issues were encouraging as this was the beginning of gender being highlighted as an active variable in her classroom and that it was capable of impacting upon her approach to planning and teaching. The beginnings of a gender inclusive approach were becoming apparent.

5.6 Inclusive gender focus sessions

Throughout the girls' and boys' focus sessions, from the beginning until the end, Jane and I discussed so many of her students needs and reflected on what had been learnt from the focus sessions. We concluded that the students need to be occupied by interactive learning experiences which kept them moving and kept their hands busy and discussed how we could intertwine these multifarious needs into an inclusive method of teaching. An inclusive approach requires support for gender preferences, offers different ways to learn, "offers activities that are connected, relational, and holistic; it values feelings, intuitions, and experiences as well as knowledge; and it offers learner control" (Campbell, 2000, cited in Dyjur, 2004, n.p.).

In developing another research session for the classroom, one that would take an inclusive focus into specific lessons, and would offer *activities that are connected, relational, and holistic* (as described immediately above), the following distillation of research findings were considered and discussed.

- Incorporate a multitude of role models

Give children a 'well rounded' idea of how males and females behave, act and what they are capable of by ensuring stereotypical images are not evident and that both male and female exemplars were present when adult representations are required.

- Learning based upon need of individuals

Inclusive practice encourages teachers and students to be sensitive to, and accept each individual's needs and differences recognising that all individuals are capable of learning and contributing (Salend, 2001).

- Discussing gender issues and language

Ensure children are aware of gender issues, stereotypical or offensive sexist terms.

- Including all students in class discussions

All children need to be encouraged to participate and share, even those not easily volunteering their thoughts.

- Allowing children to have a say in the learning environment

Allowing children to have a say provides them with a sense of empowerment. For example, finding groups based on asking the children questions such as: 'who do you think you work well with?; who challenges your thinking?; who will keep you focused?' and 'who will bring the best out of you?'

- Encouraging students to work together

Grouping children together ensures that a cooperative and reflective environment is created, where students share resources, responsibilities, skills, and decisions (Salend, 2001).

- Allowing ample reflection time

For a teacher to become a more inclusive educator, inclusive practice requires educators to continually ensure that their attitudes, teaching and classroom management practices, and the curriculum meets each student's needs. Teachers who adopt inclusive practices are flexible, responsive and critically reflect upon their values and beliefs to constantly improve their teaching practices.

5.7 Discussion of findings

The following section of this chapter reports the planning, delivery, observation, reflection and analysis of the focus sessions that comprised this action inquiry research project. Numerical data about the distribution of encouragement to boys and girls and the teacher's questioning of male and female students during the various focus session lessons was recorded and this is presented in Appendices One and Two at the back of this document. These results are referred to during the analysis and discussion below in sections 5.7 and 5.8 of this chapter.

The first planned inclusive focus session was another mathematics session on angles and it was decided to incorporate most of the points listed above inclusive practice. The lesson began several days prior when the students made their own protractors. These protractors were slightly different to the conventional protractors but the children had a very good understanding of how they work.

Throughout the introduction Jane provided a lot of direction to keep the whole class and the children's hands busy by asking them to form angles as she talked. By doing this it was intended that she would incorporate as many different learning styles as possible to meet the children's learning needs. Jane asked challenging questions to assist the students to turn the task into a competitive game so that it could proceed without the need for influence from the teacher.

The task was for the students to create eight angles using their fingers, to draw and measure them using their own protractors (kinaesthetic and challenging activities tend to favour male students, yet it also caters to the various ability levels within the grade without providing separate tasks). Throughout the session Jane encouraged the children who were struggling slightly to refer to the class 'experts' (children who have a firm understanding of this topic and had been identified as experts throughout the angles unit). This strategy promoted learning independence and allowed children to choose the direction their learning took, which is another facet of inclusive practice; that is, encouraging students to work together and to select their own preferred approach learning. The students were then asked to reflect upon what they had discovered and what they had encountered that was unexpected. They chose partners to share their results with and as occurred in a previous session they chose whether to working inside or outside of the classroom.

The children selected partners aligned with their friendship groups and all were same sex groupings. The students shared their outcomes with the teacher and class at the conclusion of the lesson. Jane was pleased with the lesson outcomes and, as she prefers a dynamic way of teaching, she felt that the children's reaction to this mode of teaching supported the necessity for need based teaching and learning practices. We incorporated a 'reflection time' of 10 minutes at the end of all the learning experiences (sometimes this reflection time occurred after lunch or recess times) in order to direct further discussion and future lessons and for Jane to get immediate feedback about the session.

For the second inclusion focus session we decided that Jane would take a different approach to another mathematics lesson on angles. The grade's current integrated unit was Australian history and Jane wanted to incorporate this unit of work into various other subject areas. Therefore, we decided that the introduction to the lesson would involve

famous Australian mathematicians (both male and female mathematicians, in order to display both men and women as role models). The introduction included a discussion about the skills possessed by mathematicians such as invention, higher order thinker, and problem solving. Jane listed a number of male mathematicians but spent a considerable amount of time focusing on Mary Everest Boole to ensure equal time was given to both male and female mathematicians. The class discussed the social climate during the early 1900s, including the lack of women's rights, and acknowledged what a strong person Mary Everest Boole would have been. This discussion ensured that the children were exposed to gendered language, which was one of the (above) suggested features for creating an inclusive learning environment. The class discussed what each of the mathematicians had become famous for, which morphed into a discussion about what each student would want to become famous for if they were mathematicians.

Following the discussion, the children moved into their task which was solving a worded problem relating to angles. This was an independent task, yet Jane allowed any students who were unclear about the process to join her on the floor for further input. This group comprised both boys and girls who consistently struggled with maths work and processes. After some more explicit instruction the children returned to their tables when they felt confident enough to complete the task independently (highlighting a sense of choice). Jane's delivery of the history component of the lesson was engaging and she made clear connections between the maths lesson and the thinking of famous mathematicians. She involved the majority of the students in the discussion and received an equal number of questions from male and female students.

During the reflective phase, Jane and I were pleased with the inclusive practices included in the lesson and the positive reactions from students towards the approach. I observed that Jane was very conscious of what she was saying during the introduction to this lesson following on from our joint discussion of specific inclusive practices such as equal time given to role models, suppling choice, involving all in the class discussion, ensuring students have the time they need, and including language and concepts related to gender issues such as women's rights, positive images of women, and comparison between today's and yesterday's social conditions for women. Although we were aware of a 'cautious' attitude, we hoped that in the following sessions Jane would be more relaxed with the expectations and behaviours of inclusive practice.

The third and fourth focus sessions were combined into a 2 hour block of persuasive writing to be followed by a debate. Jane and I had discussed our observations about the children's lack of awareness about gender as a social issue as indicated by the last lesson's discussion about women's rights. Therefore, this final (double) focus session focused upon whether schools should be single-sex, or co-educational but with single-sex classrooms. The children read a newspaper article (as a class) that discussed these issues. Then the following questions were written on the board:

1. *Should schools be single gendered?*
2. *Should co-ed schools have single gender classes?*

As soon as the lesson began there was an immediate reaction and many generalised views about gender and learning were brought quickly into the discussion. For example, a boy student stated that "if it was all girls, girls like chatting, then the classroom would be too noisy". A female student stated that "if the class only had boys then they would be punching-on all the time". Jane asked many prompting questions that took the children in the direction to question stereotypes. She helped the students to make connections between these expressed (stereotypical) gender role views to their class reading of the book *Bill's New Frock* and the *High School Musical* movie (both pop culture texts that contest stereotypical gender assumptions and display gender roles in non-traditional ways). Jane took a survey of students' responses to the question 'should co-educational schools have single-sex classes'? Fourteen students said 'yes' and eleven said 'no'. To the question 'should schools be single-sex', three said 'yes' and twenty-two students said 'no'. Interestingly, these children chose to be educated with the opposite sex, yet when it comes to choosing a partner or stating a group preference to work/learn with they choose students of the same sex.

As the discussion continued, Jane mentioned possible benefits to single-sex settings such as girls in football teams and boys joining choirs or bands. This prompted more stereotypical examples from the children as further conversation unfolded. For example, in choosing to disclose something about their own behaviours, one boy admitted that he would be embarrassed if he joined the choir as some friends would tease him. Within this discussion the term tomboy was used. Jane asked the class to define tomboy. A self

proclaimed tomboy agreed with the class definition and Jane supported this student by stating “I was a tomboy too”.

More gender issues were supplied by the children where they have witnessed non-stereotypical roles. The discussion was interesting and Jane did well in taking it to a deeper level. She tried to set the tone by listening to all opinions and by encouraging others to do the same, ensuring that each child’s opinion was heard without interruption. There are several moments when Jane had to reclaim the conversation due to the children talking over one another. Nonetheless, she appeared to thrive on the classroom debate and in the students’ retorts and expression of examples and ideas about gender.

After the discussion the students were arranged into mixed groups, but separated on characteristics such as ‘quiet’ or ‘out-spoken’. They were placed together in the hope that they will share opinions and find an opportunity to speak freely with like-minded peers. The rationale for this was that Jane wanted to involve quieter students in class discussions. One purpose of an inclusive classroom is to ensure that all students are able to participate. This method of grouping may allow the quiet and the out-spoken to share and discuss opinions in a fair and equitable manner. The groups were required to read one of three articles that took a specific opinion in the debate for single-sex classes or for mixed classes. Each group had 15 minutes to read and identify the persuasive language within the article (the students could read in any location in and around the classroom) before developing a collective group opinion.

Each person took specific role and in almost all groups a female student took (or was given) the role of scribe. The discussion groups began to create questions and refer to facts stated in the articles to support their point of view. Jane was revelling in this activity and was very passionate in allowing students to form opinions and challenge their own and other’s beliefs. The children were so engrossed with the conversation that when the bell went, the class continued to debate the single-sex vs. co-educational options and did not look to be in a rush to get outside. Afterwards, Jane spoke positively of this lesson that unpacked gender issues within this classroom and the debating activity involved in the lesson. She continues to be impressed by the effect an inclusive approach is having upon the children by raising their awareness of gender and including the whole class in all

aspects of the lesson. According to Jane it has brought about better and different student engagement.

The fifth session was the final mathematics session on angles. The lesson was created to be not only inclusive but also to incorporate all of what had been learnt throughout the unit of work into assessment. Consequently, the students were asked to create a structure such as a bridge, statue or boat using matchsticks with several restrictions. The structure had to contain right, obtuse and acute angles and had to be constructed using only thirty matchsticks. This task (being challenging and kinaesthetic) immediately excited the children, but when restrictions were placed on the task the initial confidence faded slightly. This time, the groups were decided upon differently. The intent was to see if the children could create their own optimal learning environments (involving other children in the learning process). We asked children to select their own groups based upon the following questions:

1. *Who do you think you can work well with?*
2. *Who will challenge your thinking?*
3. *Who will keep you focused?*
4. *Who will bring the best out of you?*

Together the class discussed strengths, intelligences and skills. This discussion was restricted to positive characteristics as we did not want this activity to highlight negative aspects of any child's learning. However, Jane had to emphasise this point because some students made fun of others and stated weaknesses of peers when they were nominated to go into a group. It was noted that some students chose to work with the opposite sex which had not been observed before. The groups appeared to function as co-operative and hard working units. The lesson was challenging but the teacher closely monitored each group's progress and modelled examples of the task when required. The students appeared to enjoy the challenge and worked productively. My observation was that this method of forming groups produced outcomes similar to those from female only groups. This raises questions about what may be similar between a single-sex female group and a group of children choosing their groups on the basis of effectiveness. Is it about the purpose behind the activity or about the motivations and attitudes to learning shared in the group?

During follow-up discussion, Jane claimed that she would attempt this grouping method again because she felt that she had not been explicit with instructions and did not consider how the children would respond if the technique was not carefully guided.

The sixth inclusive session followed on from sessions four and five. That is, it was about persuasive writing and the debate over single-sex and co-educational learning environments. The students were required to write a letter to School Council stating their view giving at least three reasons with evidence in support of that view. Yet before the task began Jane prompted the students to discuss arguments contained in the articles about preferred learning styles of males and females and she continued questioning their responses when they raised generalised or stereotypical positions as part of their arguments. For example, when a boy stated that “sometimes boys need girls to keep them on track and calm” and a girl claimed that “boys are smarter than girls” Jane responded with “where is your evidence, because I disagree with you, and you need to be accountable”. She says “there are eight different ways to be smart” and lists students who are smart at a variety of things, trying to show that multiple intelligences are evident in all the students. The children were again very engaged with the reality of this in their own lives. However, my observations revealed that Jane offered very little encouragement during this lesson. It stood out from many of the other lessons for this reason. Also, it incorporated more female opinions as she called upon more girls than boys during the session. In our reflective discussion, Jane was shocked to see a bias that she was not aware of from her own recollection and reflection.

Session seven focused on identifying reliable sources, as the students were about to write biographical reports on famous authors. Before the lesson, Jane spoke about what was required from this writing lesson and we discussed how to draw upon the research findings to incorporate gender inclusive practices into the learning experience. She planned on using Bloom’s taxonomy to organise their writing project (through synthesis, analysis, application, comprehension and knowledge.) As this was an individual task she placed only one restriction on the class, that when choosing their authors the grade must achieve a gender balance in those selected. Jane began the lesson by describing differences between autobiographies and biographies, before the class began brainstorming the types of questions necessary for this report. Students spoke about potential authors and discussed

why the teacher would have asked them for an equal number of male and female authors (which again drew attention to gender issues).

The discussion again brought to the surface stereotypical gendered assumptions. Later, during our post-session reflection, Jane and I considered how many preconceived ideas about gender these children had that seemed so natural and taken for granted. On a positive note, we were observing the children becoming more gender conscious, aware of history related to gender and some issues with gendered language.

The eighth and final inclusive focus session was another maths session, this time on tessellation drawings. The students were required to create their own tessellation drawing of a house, a rocket, or a Christmas tree. They worked in pairs (again being reminded of effective working partnerships) to create the tessellation using a variety of provided materials (matchsticks, blocks and paper). The students were encouraged to choose a working space where they felt comfortable, and to adopt an approach that encouraged choice in collaboration, in choosing a difficulty level, and also incorporating a variety of learning styles. During the explanation of the task Jane incorporated visual and linguistic explanation, the use of concrete materials and modelling in a variety of stages. The students immediately responded positively to the learning experience and enjoyment was expressed during the reflection time at the conclusion of the task. They enjoyed being involved in hands-on activities that were “creative, but you learn something from it” (as stated by a grade four boy). Jane observed the benefits in this activity as being putting a ‘new spin’ on tessellations “as they are not the most practical or realistic area of mathematics”. She was pleased to see children making better choices about whom they worked with and where they worked, as the groups became noticeably productive, cooperative and supportive. I too was observing students more regularly encouraging or helping fellow group members, something which had not been evident at all prior to the action inquiry getting underway. At that time, students were more competitive and were driven by not wanting to fail, whereas now they appeared engaged, eager to work as a team and more willing to interact with the other gender.

During and because of these focus sessions, conducted as part of action inquiry to observe, reflect and re-plan Jane’s lessons by indentifying and examining gendered and inclusive teaching and learning practices, I have been witness to a teacher approaching teaching and

students in new and different ways. Both Jane (the teacher) and I (the researcher) have learnt from our respective roles within the project and especially from our reflective conversations about her practice (and how it has changed through the action inquiry process). Her reactions to my observations (and her own) of her practice are revealed during three focused interviews conducted by me with her at different stages of the project.

5.8 Teacher interviews

The following sections summarise and analyse the interviews that I conducted with the teacher (Jane) at the beginning of the project, during the project, and at the completion of the project. In addition to these interviews, there were numerous conversations about the research (focus sessions, research literature, reflection and planning) that took place as part of the action inquiry cycles with each of the focused teaching 'sessions'.

5.8.1 First interview

The initial interview conducted with Jane provided me with knowledge about aspects of her as a teacher pertinent to the research. For example, she described her teaching style as progressive and hands-on and she saw herself as a kinaesthetic, interpersonal and intrapersonal learner. She said that she 'inflicts' this style of learning onto her students through her teaching. Both her parents and family inspired her into teaching as a career (there are three generations of teachers in her family). She has always enjoyed drama and P.E. and has used these to build confidence in her teaching. Jane also saw herself as innately reflective and as her own worst critic. She exuded a passion for the children and for her job and throughout the interview she spoke almost lovingly about her students. While she believed her teaching style to be open, fun and practical (i.e. games and drama), through what she called a 'structured freedom' approach, and she felt that this was better suited to male learners. About this, she made the following statement.

I still think that schools are guilty of being set up to be more lingual, so I still have that component in my teaching (which is female friendly). And I am conscious that I don't want boys to dominate so much, with the role playing, so

if I'm doing group work in a role play situation I try and get a balance with sensible personalities, maybe a girl that will (I hate to say it) organise, but be able to plan and bring people together, and want to see an outcome. As I have found that with some boys may tend to want their role play to turn into a fight scene. Girls keep them on task so I try to balance the groups up.

Although it appears that she has embraced some stereotypical ideas about gender, and places female students into a gendered role that expects particular traits, it was also obvious that it was not her intention to be sexist. When asked about the features of her teaching philosophy, she said that her aim is for students to be happy and feel good about themselves and feel that they can achieve.

When asked about the role gender plays in teaching and learning, she responded by stating that gender plays a large role in designing learning experiences and in getting the best out of the students during group work (as evidenced above in the comment about placing girls with boys who need guidance). However, she also claimed that she tended to not focus on gender specifically and that she would rather simply be inclusive by thinking about what a particular group of children may require in a given set of circumstances.

Jane revealed that she felt the level of competition amongst students within her grade did have some impact on their learning and her teaching. She was aware that boys enjoyed competition in learning, though she only allowed a small amount of competition and did not emphasis competition in her teaching. On reflection, this is not surprising as my observations would suggest that it is the children providing the emphasis not Jane. Perhaps it is difficult to change this when children are innately competitive, not just with gender, but against smarter kids, faster kids, wealthier kids, and the 'other' in general? Our challenge as teachers is to combat this to ensure children's confidence is not influenced negatively by this competition. Overall, Jane volunteered very few gender issues, apart from those considered obvious, that she saw as significant for her teaching. For a teacher of her experience and expertise this was surprising (to me). However, this inspired hope that her participation in this action inquiry project may prove to be useful professional learning for her (as participant) as well as for me (as researcher).

During our initial interview she claimed that she was more conscious of females in the early years because she believed that they were not being heard and therefore felt that “if anything I probably favour girls”. This was a little surprising given that she had also said her teaching style was likely more suited to boys and she seemed to have an understanding of inclusion. Although her understanding of inclusive practice involved limited examples, she did demonstrate how she models inclusion in this statement.

If you're looking at boys in literacy, I tend to model books that have an adventure element to them or something that I feel will engage the boys where they're going to learn from it, like *Boy Overboard* perfect! It was looking at a boy and a girl, both heroes were male and female and it looked at the adventures they both had and how gender plays apart in society itself, and encourages children to sympathise with both genders. Cultural gender issues came out of that book, and I know that boys aren't into touching on emotion, but I focused on getting them to think about how it made them feel when certain scenarios happened in the storyline. They couldn't believe that girls weren't allowed outside, not allowed to play soccer or go to school. All of a sudden they were questioning the right that we have as people.

She described herself as being conscious of gender while planning and when grouping children, but had noticed that her students (this year) preferred to maintain gender boundaries in the classroom. She had tried many activities to overturn this separation with group activities by using mixed gender groups to encourage further co-operation. However, as she stated previously, she had been grouping children to monitor behavioural needs and ensure that specific management problems could be ameliorated rather than for the attention to learning needs. Her philosophy says inclusion is important, but these practices do not fit well with that position and could be considered as indicative non-inclusive attitudes. She considered herself to be a 'closet feminist' and hoped that others saw her as a strong female and she tried to display behaviour and characteristics that others would admire.

5.8.2 Second interview

Our second interview was quite candid and free flowing. Jane and I were unrestrained and in discussing our opinions on issues of gender at Maple Leaf Primary. Unlike the first interview this one was not restricted to pre-determined questions and it included follow-up points derived from my observations. We began discussing inclusiveness at Maple Leaf Primary School, the lack of multiculturalism, and how the school's 'traditional' philosophies impacted upon the likelihood of inclusive practices being seen as important or necessary.

Jane believed that inclusion was not important in the Maple Leaf's strategic plan and its priority list due to its Anglo-Saxon cliental and the traditional views held by middle-class and working-class parents. She felt that the students were rather sheltered and traditional gender values were already deeply ingrained upon their arrival at school. While she felt that gender was becoming a factor in the curriculum, this only reflected a new urgency about boys' learning due to recent school assessment data that had shown a decline in the writing skills of male students. To attend to this decline, the leadership team had applied to be a part of a federally funded program on Educating Boys that involved staff participating in a variety of seminars and lectures, including one of which led by boys' needs guru Steve Biddulph.

While Biddulph's philosophies have been considered questionable in some academic circles, the school had embraced its 'gospel' with procedures and attitudes put in place. Jane and I began to question some of the results of this PD as our research proceeded. On being questioned about how she had integrated his theories into her own teaching, she said that, despite feeling predisposed to a more male friendly style of teaching, the Biddulph approach had not had an impact upon her teaching.

During the second interview we also discussed the impact of an all male leadership team (principal and vice principal) on curriculum, policy and attitudes. Jane herself had leadership aspirations and felt that it may appear discriminatory but was unsure if it impinged on the students' opinion about gender. She wondered how this could be measured without leading the students to a pre-determined opinion.

During the second interview, we further discussed the student cohort she was teaching and her insight that her female students this year held strong stereotypical views about career paths and behaviour of girls/women. Although concerned about these attitudes, she was not inclined to challenge or change these perceptions through formal or informal learning or by creating different expectations in the learning environment. This response was surprising as Jane had seemed to be interested in studies about biases hidden in curriculum.

Jane was concerned about the role models girls chose to aspire to and thought that female students often focused on the physical side of a person (what a person looked like), such as “Singers and actresses... stars! And their comments related to their beauty or because they like what they wore”, whereas boys focused on role models chosen on skills and because they were brave or risk takers and “the girls didn’t mention skills and that’s a worry”.

This discussion influenced some of the inclusive lessons and we later included positive female role models who were famous because they were smart, strong and ambitious and not because of their dancing skills, their body, or for who they were dating. Not that we felt that one lesson on role models would make a real difference, but more as a way of showing that inclusive practices need to be reinforced and put into practice in a variety of ways.

More questions than answers arose from the second interview. Yet, more was learnt about Jane’s views on how gender and how these inform her attitudes toward inclusion and its importance in making change to her planning.

5.8.3 Final interview

The final formal interview began with the questions I had posed initially at the beginning of this research project. It was these questions that guided my observations and I needed to bring my observations to meet her opinions. These initial questions were:

1. Does this classroom teacher incorporate gender biases or stereotypes into her practices?
2. Are boys or girls listened to more carefully or differently?

3. Are boys or girls given more feedback?
4. Are the students surrounded by gender inclusive materials and language?

Regarding question one, I found that Jane did incorporate bias or stereotypes in her classroom practices, despite her claims that she did not. Jane was concerned with data that was so skewed; that is, showing that males answered more questions, yet females and males received the same amount of encouragement/feedback. She conceded that there may be some gender bias present, but claimed it was not intentional as she wanted to present positive role models for the children to aspire to and to create an environment that will produce successful outcomes for all students.

My observations about question two show that it was not an issue within Jane's practice. She gave all students equal opportunities to speak freely and explain themselves to be "open and comfortable sharing their opinions". Yet she remained concerned about this because while she listened carefully to what each child had to say, she was very conscious that the boys took up too much of her time with behaviour management, controlling class discussion and the teaching of specific skills. Interestingly, that concern was not evidenced in her actions recorded in my observations. Possibly, this was because we were both aware of these concerns from the beginning of the research and therefore had created learning experiences (including very active, kinaesthetic lessons) as part of the focused inquiries that offset these behaviours.

In regard to Jane's use of feedback, I did not observe significant instances of advice or encouragement throughout the eighteen focus sessions other than that which had been given initially to the female students. Jane was surprised by this as she felt she had encouraged her children quite regularly. I too was surprised by this because Jane had claimed pride about this aspect of her teaching philosophy and teaching approach. If nothing more, the observations confirmed Sadker and Sadker's (1994) finding that "in many classrooms teachers do not use any praise or criticism at all" (p.54). While the evidence for feedback was quite thin, there was some meaningful encouragement but it was just not distributed evenly. While the mismatch between (my) observations and (her) perception was a concern, as I had observed Jane on numerous times prior to the research commencing, I felt that my observations sessions were reliable.

The final question asked me to observe the learning environment and the teacher's language. Overall, I believe that Jane provided the children with an inclusive learning environment with many opportunities to engage with inclusive materials. She did encourage various learning styles and ensure that the learning experiences were engaging and this was evident in her records of planning and, as she said, she was always "trying to find new ways to make things fun". At times her use of language could not be considered inclusive, but this did improve as the project progressed and she became more aware of its importance from the classroom studies and research we discussed.

From these interviews I learnt that Jane attained a considerable amount from participating in this action inquiry project. She believed that it was a means of self assessment suitable for other teaching staff. Jane found the collected data to be helpful, if slightly surprised by its results. For instance, she was not aware of the difference in how many boys compared to girls that she called upon in her routine interactions with the class; she was surprised that her use of encouragement was not as consistent as she had thought, and that in some lessons she did not encourage her students at all. These results surprised her, but she would never have observed in her teaching by herself. Our conversations about the observations and her teaching practice led Jane (and me) to a better understanding of gender inclusion and how it may be included in a teacher's day to day classroom practice. That in itself is enough to show there were beneficial outcomes from this research.

5.9 Student interviews

As stated previously I received permission from parents to conduct twelve interviews with the students - nine boys and three girls. I was able to derive a considerable amount of information from these interviews and believe they were successful despite not having equal numbers of males and females.

In hindsight, the interviews were difficult to conduct and components of the questions should have been unpacked and scaffolded more before I interviewed the students. The responses were such that I began to question whether the students were answering honestly but it then appeared that many of the students did not understand my initial questions. I then had to break them down further as each question arose to ensure they

could think through their responses. This disruption to the interviews made them fractured and the connections I had hoped the students would make between classroom events and ideas about gender proved difficult to find. For example, several children did not understand the concept of 'fairness' within the context of the questions put to them.

However, in the spirit of the inquiry and the data, these interviews revealed interesting points, some of which are described below.

- The children said they only socialised with their own gender.
- Friendships based upon gender could be easily explained by these children. It was simply put by one of the subjects "I am a boy, I play with boys!"
- In this group the boy's favoured maths, girls preferred art and Languages of than English (LOTE) (only one of the girls claimed to like maths wholeheartedly).
- These students preferred to learn with their friends. But did this mean that they preferred to learn with the same gender? I think I should have re-worded the question to make it more explicit, as I wanted the students to answer that they preferred male or female. I was then going to ask them to explain their answer.
- When asked to define 'fair' they went directly to something like "If you buy a packet of chips and someone gets nearly all of it and someone else gets like two bits of it, then if it was fair you would actually get half each". Therefore, students believed that a fair teacher shared things numerically; that is, everyone gets a prize or everyone gets a turn with a new piece of equipment. Again this was not the intention of the question as I was hoping children would provide specific language or a specific example of a teacher's 'fair' behaviour.
- Children's interpretation of a fair teacher was that they were; nice, happy all the time, and didn't yell. Another child claimed that a fair teacher was "a teacher that has to treat everyone the same, because they deserve to treat everyone the same (boys and girls)". Amongst the other comments, this insight was very profound.
- The most interesting component of the student interviews was about their beliefs about everyone in their class being treated the same. Some students took this question as children treating each other fairly, while others saw it as about teachers treating students fairly. Again, I needed a clearer question. Some believed that they were treated the same, while others claimed that "some people are and some people aren't". For example, one child claimed that "if you are naughty, you will

get yelled at so that isn't very fair and that's not being treated the same. If you are good and if you are naughty you don't get treated the same way". Another child claimed that "no, because they get yelled at when they don't listen sometimes. But it doesn't have anything to do with being a boy or a girl, just when you're in trouble"!

The children's perceptions of their own learning environment were insightful, and they added to the project. It is necessary for students to have a voice within a project that ultimately is about their learning. As mentioned, in hindsight, there were more and different questions I could have asked to pursue the students' understandings of gender in their classroom.

5.10 A reflection on the findings

I am aware that this research focuses on only one teacher, in one classroom setting, and that a similar inquiry with any of the thousands of teachers in Victorian schools would have produced a different set of results. Therefore while this project cannot bring about transferable generalisations, my and Jane's observations and reflections have enabled her to question her own practice and enabled me to question the veracity of research findings reported in the literature through an up-close assessment of a teacher employing both gendered and inclusive teaching practices. This reflection has also been further verified by quantitative research as shown in appendices five and six. As a teacher myself, I know that it does feel different when teaching with another pair of eyes and ears in the classroom. But to defend my research and the outcomes, I had been a regular presence in the Jane's classroom for many months and our professional connection was stable, trusting and open. While the collected data was not always positive, this was also acknowledged by Jane, she embraced this critique and looked upon it as something that would ultimately widen her thinking and improve the learning environment of her student. Overall, she created a creative and caring classroom and was passionate about her work. We all have strengths and weaknesses and work towards improving ourselves and our practice and this action inquiry project was able to do exactly that.

Chapter Six

Project Conclusion

6.1 Review of the research project aims

In the final remarks of my research proposal I stated that ‘I expect that this project will uncover how one teacher deals with gender within their learning environment and identify how the school’s curriculum and the teacher incorporate gender inclusion into learning practices. This research will also explore how students are reacting to the teacher’s practices, language, behaviours and learning environment that teacher creates. Ultimately, it is hoped that the teacher will gain insight into gender inclusive practices, improve her teaching strategies, and learn accessible action research techniques that could be utilised at a later time’. Have these aims been achieved? In order to answer this, each of my initial research questions will now be reviewed.

1. How does a teacher’s awareness of gendered teaching, learning and behaviour influence their teaching approach?

I have learnt that this teacher’s awareness of gender was not well theorised and it remained an area that little thought was given to beyond practical dimensions such as class ratios, seating positions and writing approaches. Although the teacher (Jane) was aware of learning styles associated with genders, her already formed educational philosophy dominated her design of learning experiences which, she stated, more than likely favoured so-called male learning styles. Jane preferred to teach in a kinaesthetic fashion and that preference was evident throughout my observations of her teaching. Jane believed that in the school, girls’ styles of learning were not a priority. Her immediate instinct was to make tasks more interesting rather than making them more inclusive. Although student interest is a significant component in our planning, for engagement is a central feature of modern teaching methods such as E5 and De Bono thinking tools, it would be preferable to create lessons incorporating both factors of inclusion and engagement.

I had been observing Jane for a significant time and noticed that her approach was not always consistent. Her philosophy articulated an inclusive approach, and at times her

practice connected with that approach, but there were other times when her behaviour and language did not fit this philosophy.

As the research moved its focus from male, to female, to inclusive approaches the teacher's level of awareness of gendered teaching did shift, although it was not always present in the same way in each of selected focus areas. As the project developed Jane began to identify gender issues within the school, the community and the curriculum and I observed her adopt different approaches towards her students. When working with the children in the specially formed single or mixed gender groups she showed a gentler manner with the females and a more jovial attitude toward the males. She also began to observe and discuss differences in lesson outcomes from grouping children in different ways. She found that girls were more open to sharing and questioning without boys around to distract or taunt. She also saw that boys were more engaged by the application of so-called specified male centred teaching styles. Throughout the research process she began to adopt inclusive practices and to understand the importance and frequency of gender issues occurring within her classroom. Therefore, I can conclude that with more knowledge, comes more awareness, and more skills lead to teachers including gender as a significant factor within their planning, teaching and reflection.

2. How does a teacher reflect on teaching and learning practices in working towards a gender inclusive classroom?

With encouragement and assistance, Jane began to observe the presence of gender issues within her classroom and to identify the role they played in classroom learning relationships and outcomes. Through supported reflection as part of the action inquiry, she began to question the role played by gender in her teaching and in the learning behaviours of her students. For example, she became conscious of patterns in female students' participation in discussion and at question times, and was concerned about girls not having their say by being dominated by the boys within the classroom. She sought to make her class more collaborative by creating lessons that encouraged students to work cohesively and co-operatively, be respectful of other's opinions and be fair communicators. Jane created an inclusive classroom including diversity as a topic in integrated units, though gender often only featured in the background of her planning. However, once the action inquiry cycles were complete, she did appear to have become more equitable in planning,

in calling equally upon male and female students, in awareness of the importance of role models in texts, and in encouraging a range of learning styles.

Jane was determined to be an inventive teacher and was always searching for new and dynamic teaching approaches. Consequently, she was open to the research literature and to applying theories about gender inclusion that we discussed before and during the action inquiry. By incorporating insights from research (Sadker & Sadker, 1994; and Spencer, Porche & Tolman, 2003) about how teachers can influence their students, she began to appreciate the influence that decisions about gender in the classroom had over students, especially after observing the outcomes from different ways of gender grouping students and by using the project's lesson focuses. Jane began to see connections between research findings and the outcomes from differences in levels of encouragement (Sadker & Sadker 1994) and in the gendered distribution of questions asked of students by the teacher in the classroom (Sadker & Zittleman, 2007). Working with the available research literature about gender and teaching, became an important component in improving her level of reflection and in working towards becoming a more inclusive teacher.

3. *How are students interpreting their teacher's gender inclusive teaching practices within their learning environment?*

This was the most open-ended component of the research, as this question relied mostly upon my observations and analysis of the students' reactions to those gendered learning experiences that have been described in this document. Although I learnt a lot from these interviews, as outlined in section 5.9 above, they did not offer much insight. I found out more about the children's assumed ideas about gender, rather than how gender impacts upon their education.

Upon reflection, it may have worked better had I altered my interactions with the students and it may possibly have been useful to conduct a reflective discussion with the class at the conclusion of the project. This may have provided students with an opportunity to reflect upon the inclusion, mixed and single-sex focus sessions as a class group. This would have provided me with a better indication of what they had learnt. The questions asked during the student interviews did not cover the teacher's teaching practices, but rather her language and behaviour and that of other 'fair' teachers. Within these questions

the children's responses were varied and showed limited understanding of gender issues. I was forced to provide examples of certain situations in order to ensure they understood what I was asking of them, but this may have led the students in some way.

Students' responses were saturated with comment about friendships and fun and many questioned me about what I meant by 'fair'. Although some of the information was useful, and I discovered that certain students had absorbed what I have described as the hidden curriculum, some children understood more than others. Based on my observations and their responses, my conclusion is that the children were well aware of gender in the social dimension of the classroom and that whether you are a boy or a girl makes a significant difference in your friends, how you are disciplined, what you play at recess, and what you say you are interested in. However, not one child made reference to gender influencing what, or how, they learn or whether the teacher treats them differently outside of discipline. I have come to the view that analysis of gender is something that must be explicitly taught (at this age) and that teacher behaviour may need to be more obvious (than what I have observed) in order for students to truly understand gender bias within their learning environment.

6.2 Reflection on the research project

Ultimately, while I do believe that I have begun to reveal aspects of how this teacher deals with gender in her classroom, in order to attain a more comprehensive view that linked outcomes to particular events, strategies and activities, I would have needed:

- a longer observational phase,
- an increased amount of focus sessions (i.e. male/female/inclusive focuses), and
- more follow up interviews for the teacher and students.

A later follow-up period of observation, beyond the chosen action inquiry cycles, to determine if the strategies or philosophies were evident on a more permanent basis, would have allowed a point of comparison and produced more conclusive data on how the teacher and students react to this style of teaching. An extended period of research and observation would have also permitted a deeper understanding of children's perceptions of their teacher's practices and how inclusion influences their schooling and learning. To add

more depth to what I observed and heard from children about learning, it may have been useful for the teacher to introduce key words or concepts over the investigation period (and certainly before I began interviewing them). This would have equipped students with concepts and vocabulary to answer my interview questions and ensure that they were more able to name, and therefore draw on more refined, experiences of gender within their education.

6.3 A final summary

There are many things that have been learnt from this study. In particular, teachers need to be better informed, not just aware, of gender so as to begin to understand the physical, cognitive and behavioural differences in the classroom and in the students. Gender is intertwined in various aspects of our lives and, from the experience of conducting this research, I feel that this is an issue that can be acknowledged, prioritised and integrated into the school curriculum and into teaching philosophies.

We need to work at building inclusive ways of learning. Gender issues have been present and challenged throughout history and they need a presence in the taught curriculum, not just the hidden curriculum, if we are to prevent the ongoing cycle of negative stereotypes, biases and social idioms that cause disruption within classrooms (and the community). Teachers are entrusted with stewarding children into society, not only to expand their minds academically but also to teach students social skills and values. We must strive to ensure that children understand and respect people's differences, strengths and abilities. Yet, before we can achieve this, we must look at ourselves, our beliefs, and our practices within the learning environments we build. I feel that I have helped one teacher on this journey in understanding how to work towards a gender inclusive classroom that will support all students in learning. The project has given this teacher, and me, greater insight into teaching practices and the possibilities for an inclusive approach that will effectively address gender issues.

My view is that there is still a need to refine teaching practices in how we approach gender within classrooms. However, some academics have argued that further gender research needs to go "beyond viewing gender as a core element of selfhood and instead examine

the equity implications for education policy of understanding multiple positions on identity” (Arnot & Mac an Ghail, 2006, p.19). Gender research has the capacity to do both and as a result to bring new issues to the forefront, whether that is about teaching practices or a teacher’s learning environment, and issues beyond those for particular groups of boys or girls, or gender aware middle class children, but also to other marginalised groups as well.

Jane, the participant teacher in this project, transferred from her teaching position at Maple Leaf Primary School to become a literacy coach in a separate region. She visits various schools, conducts professional development sessions, and mentors teachers. Recently she contacted me to locate a key book we had discussed during this research project (*Bill’s New Frock*). In her email she stated that more schools were in need of this book to help uncover and analyse stereotypical behaviours by children and teachers. It made me realise that I had put into action a small chain of events where inclusiveness and gendered teacher practices are being talked about and that my research has had an impact beyond Jane (and me) and consequently may lead to yet more children’s gendered learning experiences becoming open to scrutiny and ultimately gender inclusive.

This research project has been a rewarding and gratifying experience that has allowed me to become a better teacher and a teacher researcher. I am aware of the benefits of action inquiry for teachers’ work and how to collect and work with meaningful data about teaching practices. I trust that what has been reported here provides a concise, rational and an accurate depiction of the project, its outcomes and the importance of gender in building inclusive practices in the primary school.

Appendices

Appendix One: Student interview questions

Note: Before the interview process begins, each child will consent to participate in this study.

Opening Dialogue

(To ensure the students are comfortable, and understand what study they will be in participating in, I have designed the following dialogue that will open each of the 27 student interviews. However, it is a fairly general statement as I do not want to influence their responses.)

Do you know why I have been visiting your classroom for the last couple of months? I am conducting research in your classroom, because I am completing a course at university called a Masters Degree which allows me to do a huge project. I am very interested in hearing what you have to say, and I will assure you that what you say to me today, is strictly between you and me, your parents have given their consent, and if you agree to this interview, I would really like to chat to you!!

- 1. Are the boys and girls expected to behave or act differently? (I.e. at home, at school, at after school activities?)**
- 2. Who are your friends? Why?**
 - (i) Do you spend time with girls? (This question will be asked if I am interviewing a male.)
 - (ii) Do you spend time with boys? (This question will be asked if I am interviewing a female.)
- 3. Who do you like learning with? Why?**
- 4. What kinds of learning do you like the best?**
- 5. When you think of a fair teacher, what do you imagine? What qualities do they have?**
 - (i) Have you had a fair teacher? Why were they fair?
- 6. Is everyone in your classroom treated the same? Why or why not?**

Note: Each child will be asked the above base-set of questions, however, depending upon the students responses other questions may be asked, to further investigate their answers.

Appendix Two: Parent information statement



Design and Social Context Portfolio School of Education

Project Title: Gender Inclusive Practices within the Primary Classroom.

Dear Parent/Guardian

My name is Carly-Lee Wight and I am studying for my Master of Education degree in the School of Education, Design and Social Context Portfolio, at RMIT University. I am conducting a research project under the supervision of Dr. Geoff Shacklock, an Associate Professor in the School of Education. I invite you to consider allowing your son/daughter to participate in this project, the details of which appear below.

I am exploring how teachers take into account the specific learning needs of boys and girls in planning and implementing lessons. The focus of my investigation is to identify what type of learning benefits boys and girls and how these differences can be taken into account in the learning experiences prepared by the teacher. The project will be conducted over several months during which time I will observe classroom activities for ten whole school days (to be negotiated with the teacher Miss xxxx). My observations will be used to analyse the outcomes and reactions of both the teacher and students.

The teacher and I will plan small and whole group gendered and inclusive learning experiences and I will observe and audio-record the teacher implementing these lessons. Interviews with the teacher will be carried out to record what the teacher is planning to achieve and what type of approaches the teacher is initiating to address gender inclusive issues in the classroom. I will also observe children's learning and their interactions with the teacher and their peers during these lessons.

The project has been approved by RMIT University Human Research Ethics Committee and the Department of Education and Training (Victoria) and has the support of the xxxx Primary School Principal.

If you give your permission I will conduct a short interview with your child after one of these lessons. The interview will last approximately 10 minutes and be conducted in a fully supervised environment during a non-teaching time. I am also seeking your permission to audio-tape the interview with your child. The interview questions focus on how and who students interact with during their learning.

No findings will be published which will identify your child or any other child. Anonymity and confidentiality is assured by the procedure: all consent forms will be completed and stored separately before any interviews take place; your daughter/son will be given a pseudonym for reference during interviews and observations. Any information that your child provides can be disclosed only if (1) it is to protect you or others from harm, (2) a court order is produced, or (3) you provide other researchers with written permission. Access to audio-recorded data is restricted to my supervisor and to me. The principal and the classroom teacher will only receive a written report at the completion of the project. Coded data are stored for five years, as prescribed by University regulations.

Participation in this research is entirely voluntary and, if you agree to allow your son/daughter to participate, you may withdraw your consent at any time. You also have the right to have any unprocessed data withdrawn and destroyed provided it can be reliably identified, and provided that doing so does not increase the risk for the participant. If you wish to allow your daughter/son to participate you are required to sign a consent form and return it to the school office in the envelope provided.

The final report will be submitted to RMIT University, the Department of Education and Training Victoria and a report of the project will be provided to xxxx Primary School. Results may also be published in journals and conference presentations. If you have any queries or would like to be informed of the overall research findings, please contact me through the School Office at xxxx Primary School or my Senior Supervisor Dr Geoff Shacklock at RMIT University on 99257850.

Thank-You

Carly-Lee Wight

Any complaints about your participation in this project may be directed to the Secretary, RMIT Human Research Ethics Committee, University Secretariat, RMIT, GPO Box 2476V, Melbourne, 3001. The telephone number is (03) 9925 1745.

Details of the complaints procedure are available from: www.rmit.edu.au/council/hrec

Appendix Three: Student consent form



RMIT HUMAN RESEARCH ETHICS COMMITTEE

Prescribed Consent Form for Persons Participating In Research Projects Involving Interviews, Questionnaires, Focus Groups or Disclosure of Personal Information

Portfolio	Design and Social Context
School of	Education
Name of participant:	
Project Title:	Gender Inclusive Practices within the Primary Classroom
Name(s) of investigators: (1)	Carly-Lee Wight Phone: _____
(2)	Phone: _____

1. I have received a statement explaining the interviews and observations involved in this project.
2. I consent to participate in the above project, the particulars of which - including details of the interviews - have been explained to me.
3. I authorise the investigator to interview me and observe my classroom.
4. I give my permission to be audio-taped Yes No
5. I give my permission for my name or identity to be used Yes No
6. I acknowledge that:
 - (a) Having read Plain Language Statement, I agree to the general purpose, methods and demands of the study.
 - (b) I have been informed that I am free to withdraw from the project at any time and to withdraw any unprocessed data previously supplied.
 - (c) The project is for the purpose of research and/or teaching. It may not be of direct benefit to me.
 - (d) The privacy of the personal information I provide will be safeguarded and only disclosed where I have consented to the disclosure or as required by law.
 - (e) The security of the research data is assured during and after completion of the study. The data collected during the study may be published, and a report of the project outcomes will be provided to RMIT University, The Department of Education and Training, and also xxx Primary School. Any information which will identify me will not be used unless I have given my permission (see point 5).

Participant's Consent

Name: _____ Date: _____
(Participant)

Name: _____ Date: _____
(Witness to signature)

Where participant is under 18 years of age:

I consent to the participation of _____ in the above project.

Signature: (1) _____ (2) _____ Date: _____
(Signatures of parents or guardians)

Name: _____ Date: _____
(Witness to signature)

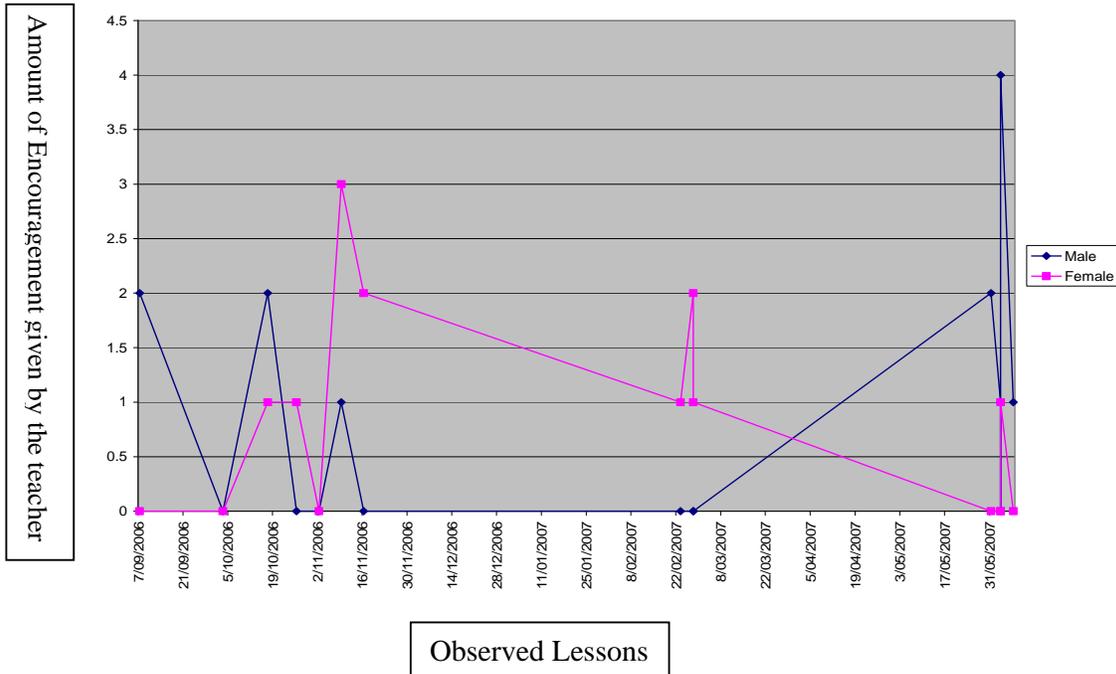
Participants should be given a photocopy of this consent form after it has been signed.

Appendix Four: Initial teacher interview questions

The second and third teacher interviews will be based upon these responses and the research outcomes.

1. What or who inspired you to become a primary school teacher?
2. When did you decide to become a primary school teacher? Did those around you support your decision?
3. How would you describe your teaching style?
4. What are the most substantial features within your teaching philosophy?
5. How would you describe yourself as a teacher?
6. What role does gender play in teaching and learning?
7. What is your understanding of inclusion in teaching and learning?
8. Do you consider these issues to be important within your teaching practices? How?
(please supply examples in planning etc)

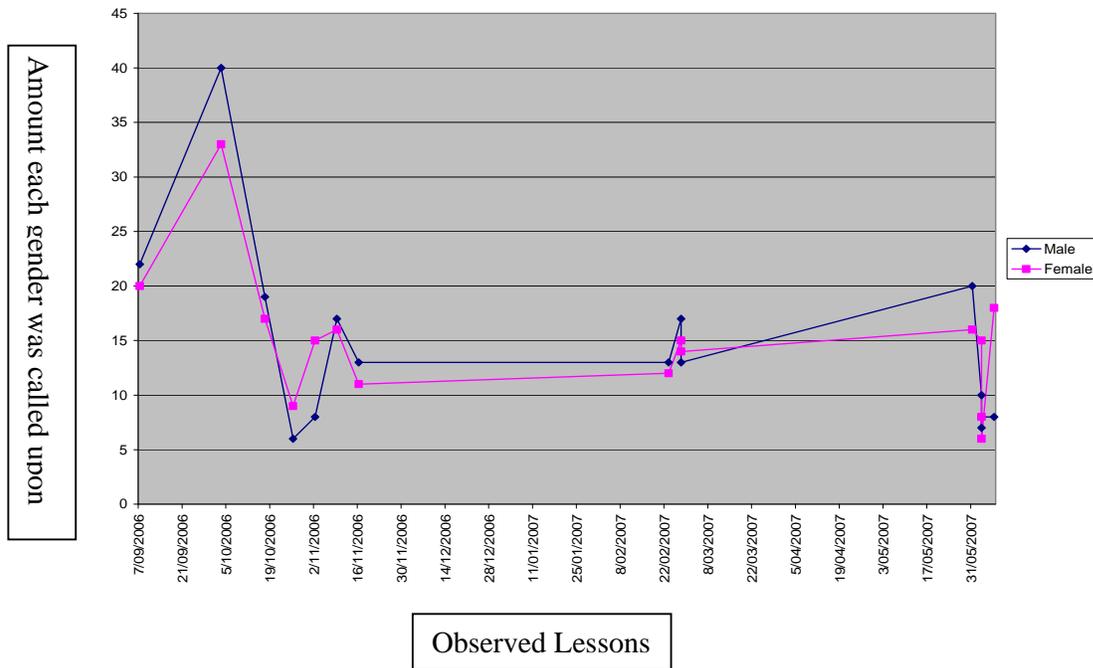
Appendix Five: Amount of feedback/encouragement



This graph describes the teacher's level of encouragement given to her male and female students throughout each of the three focuses (male, female and inclusive) over the 20 lessons. The data has been represented in this format to display the fluctuating rate of encouragement given to both female and male students by the teacher. This was useful during the project's reflection phase. It proved surprising and confronting at that time.

There is no obvious pattern between the levels of encouragement recorded from the male, female or inclusive focus sessions. However, during female focus sessions the teacher did encourage her female students more often, which was one of the things that I asked her to attend to. Throughout the male focus sessions the males obtained very little encouragement. The boys received an increasing level of encouragement throughout the inclusive sessions, and the level of encouragement for girls began to decline. An inclusive approach asks for an equitable encouragement and in the inclusive sessions male students received more encouragement than the female students. These results displayed a lack of consistency with the teacher's approach to gender. Encouragement is a necessary component of any child's education and their confidence level and to observe this variance of encouragement between male and female was concerning.

Appendix Six: Questions answered by males or females



This graph displays how often the teacher called upon or questioned by gender throughout the focus sessions. Again, this data has been represented in this manner to contrast the outcomes for boys and girls and to indicate any difference between the focus sessions: female, male, or inclusive.

The number of questions that were answered by female and male students throughout the focus sessions was relatively the same throughout the data collection. The big variation in the numbers of questions asked from session to session was due to the duration of the lessons. Some lessons required more discussion and therefore more questions were asked. The teacher was very aware of who and how she questioned students throughout the research process.

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