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JAMES COOK UNIVERSITY
AUSTRALIA

BOYS ARE DOCTORS,

GIRLS ARE NURSES:

The resilience of gender as a determinant in the career aspirations of girls.

Carole Ford

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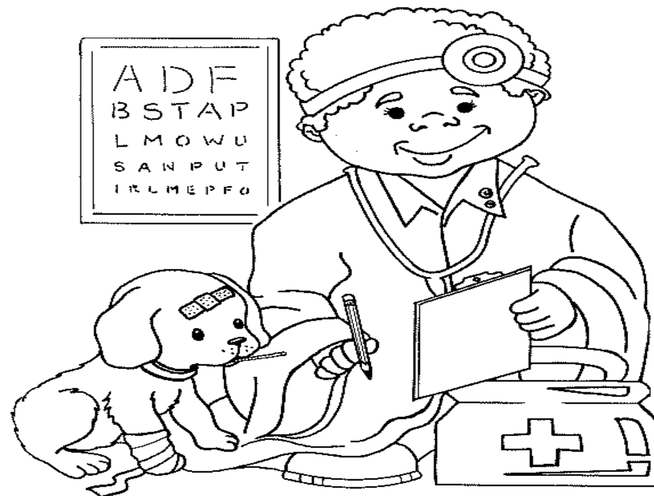
James Cook University

Thesis completed in fulfilment of the requirements for the Masters of Education (Honours) Degree

July 2011

'Boys are doctors, girls are nurses'



Candidate's Declaration on Ethics

The research presented and reported in this thesis was conducted within the guidelines for research ethics outlined in the *National Statement on Ethics Conduct in Research Involving Human (*1999*),* the *Joint NHMRC/AVCC Statement and Guidelines on Research Practice* (1997)*,* the *James Cook University Policy on Experimentation Ethics*. *Standard Practices and Guidelines* (2001), and the *James Cook University Statement and Guidelines on Research Practice* (2001). The proposed research methodology received clearance from the James Cook University Experimentation Ethics Review Committee (approval number H2202)

________________________ ______________

Dr Carole Ford Date

ABSTRACT

Boys are doctors, girls are nurses:

The resilience of gender in the career aspirations of girls

Despite three decades of equity policy in education a range of factors continue to contribute to differential outcomes for girls and women in the labour market. Research into concepts of work and gender stereotypes in early childhood provide an understanding of the social and educational contexts that perpetuate the gender-segregated workplace. This project demonstrates how the intersection of socialisation, curriculum and education practice impacts on the career aspirations of girls and the implications this has for pre-vocational teacher education, classroom practices, career counselling and the curriculum. Most importantly it argues that career awareness and the development of knowledge of the world of work is a process that should commence in early childhood settings.

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ACKNOWLEDGEMENTS

I embarked on this project with great enthusiasm quite some time ago, but unfortunately major surgery and rehabilitation, and then a number of critical family issues intervened. I seriously considered abandoning the project, even though I felt deep commitment to the topic. Undeterred, Hilary Whitehouse, my supervisor, encouraged me to reappraise my position – with a judicious balance of support, cajoling, challenge and friendship – and see the project through to fruition. And those who know Hilary will agree that her enthusiasm and energy are infectious. Thank you Hilary.

I appreciate the opportunity provided so willingly by Richard Ruddell, Principal at Redlynch State College, to pursue my research at his school. I am particularly grateful to the children, parents and teachers who accommodated my intrusion into their lives with such warm welcome.

I have enjoyed many remarkable experiences as an educator; I loved classroom teaching, absolutely cherished working with young children and through personal experience and circumstance became a strong advocate for women and girls. This passion has contributed to personal activism on so many levels, but education has persisted as an important area of focus for me. Over this time, I have learnt from my colleagues, motivated by those who gave advice and constructive criticism, challenged to refine my knowledge and understanding by the disbelievers, and always nurtured by my interactions with children and dedicated teachers.

As always, I acknowledge the patient and unequivocal support of John, who continues to gain skills as an unpaid but 'willing' research assistant, and who is particularly adept at making me a coffee just when I need it.

This project represents my ongoing contribution for all those women and girls who were denied the opportunity to achieve to their potential. The struggle continues.

Chapter 1: A History Lesson

1.1 The Research Project

> A group of parents arranged a hospital tour for a class of 20 pre-schoolers. At the end of the tour each child was presented with a cap: doctors' caps for the boys, nurses' caps for the girls. The parents, outraged at the sexism, requested that the hospital administration change their policy. The next year a similar tour was arranged and at the end parents returned to collect their children. What did they find? The exact same thing as the previous year! They went to confront the director and demand an explanation. The director responded by assuring the parents that this year had been different. "This year we offered them whichever cap they wanted."

Hofstadter (1986)

This study examines the impact and resilience of gender understandings on the career aspirations of women and girls. It illustrates how children in primary school are already discarding potential careers based on their perceptions of what is gender appropriate, and how this sustains the sex division of labour which is an historical feature of employment in Australia. Additionally it recognises the role of education in perpetuating gender-stereotypes and consequently promotes the implementation of a conceptual framework and skills development program for career education, beginning in early childhood.

1.2 Past, present and future

An appealing aspect of this research project is that while it maintains an undeniably educational focus it is also demonstrably trans-disciplinary in its context. To precipitate change in education policy and practice inevitably involves recognising 'the problem' or how it is represented, the presuppositions it implies, and the nuances that the responses may demonstrate. Carol Lee Bacchi (1999) expands an argument for evaluating competing interpretations through assessing representations of problems, linking them to desirable outcomes, and in her discourse identifying the political commitment necessary for ensuring 'improvement' in the possibilities for women. This emphasis is integral to my approach and

hopefully results in a renewed recognition of how the role of gender has been interpreted, reinterpreted and effectively negated in much contemporary research (Baker, 2009).

My proposal, the questions I ask, the debates I highlight and the insights I provide had their naissance in the conceptual interpretation of equal opportunity as an effective antidote to 'women's inequality', prevalent in the elementary stages of gender-awareness in education – circa 1960s (Dalley-Trim, 2008). However even by the early 1980s educators were challenging the efficacy of programs founded on the 'inadequacies' of females in environments characterised by pervasive male bias (Du Bois, 1985). Gherardi (1994) remarked that she was convinced, by both her experience and personal conviction, that equal opportunity programs where the organisational culture relegated women to the realms of 'the other' precluded sustainable change, permitting instead a rudimentary shifting of gender boundaries. I mention this lest the reader has a lingering premonition that issues of 'women's work' and all its educational paraphernalia have been exhaustively discussed and are consequently redundant.

For any teacher working in the area of gender equity in the Australian school system of the1980s and 1990s, scenarios similar to that quoted in the text box at the beginning of this chapter were often the basis for awareness-raising. Agitating for change under the lofty banner of 'girls can do anything', equal opportunity practitioners ensured that issues of inclusivity, gender equity, social justice and level playing fields were central to the discussion (Baker, 2009); but of course not everyone was listening.

The Commonwealth Schools Commission (1975) released a report which "…presented a case that on the basis of societal and economic changes and on the basis of the requirements of good education, schooling in Australia was in need of reform". The tardy nature of educational reform contributed to the National Policy for the Education of Women and Girls (1987), which was the first of many government documents that acknowledged the category of girls as central to reform. Strategies for change included: revising and reviewing texts used in classrooms; encouraging girls into non-traditional subjects and occupations; appointing more female staff; and developing equal opportunity working parties, support centres and teacher networks (Weiner, 1994). Despite sustained research and action, prevalent until the 1990s, designed to promote and improve the educational and occupational experiences of girls

and women, many of the processes and structures that oppressed and constrained girls remained unaltered (Clark, 1989:2).

Leonie Rowan (1997) conceded women's continuing marginality in educational environments which was accompanied by a subsequent devaluing of the female experience. However, she argued for the possibility of taking 'women into spaces where they have previously been denied access' and dismantling what passes as 'natural' and 'normal' in the educative process (Rowan, 1997). At the primary and secondary school level (P-12) state restructuring and legislative reform raised expectations that educational opportunities may enable the maximisation of each student's potential, in spite of gender (Ford, 2001; Ringrose, 2007).

Lyn Yates (1993: 109) also questioned the effectiveness of a conceptually narrow definition of 'equal opportunity'. She thought it notable "…just how much attention has been devoted to topping up supposed inadequacies of girls, and how little to addressing the education of boys and its contribution to sexual inequality". The contemporary climate, with discourse of male disadvantage embedded in the gender politics debate, has the potential to undermine the somewhat modest gains achieved for girls and women in the past three decades. The *What about the boys?* backlash exists as a definitive marker that there were positive advancements in the provision of more equitable education.

While I perceive it as important to avoid the 'competing victims' syndrome so eloquently described by Bob Lingard and Peter Douglas (1995), it is nonetheless valuable to consistently reinforce a focus on women and girls within the educational agenda. The impact of popularism surrounding the schooling crisis for males has resulted in a redirection of political energy away from equity issues for females. The reinterpretation of what was once implied by gender inequity has resulted in the "G" word (gender) compromising the voice of females. In this post-everything era, where individualism is celebrated, the educational circumstances for many women and girls remain entrenched in a narrow and restrictive definition of educational participation, while the affirmation of the relative success of some females reassures the masses that reform has been achieved (Alloway & Dalley-Trim, 2009; Burman, 2005). And we still exhort all girls that they can do anything!

Deborah Rhode (1997) comments that a common response to gender inequality is to deny its dimensions. A widespread perception is that once upon a time, women suffered serious

discrimination, but those days are over. Barriers have been coming down, women have been moving up, and full equality is just around the corner. If anything, many men believe that women are getting undeserved advantage. This perception has resulted in a diversion of resources away from feminist studies at many universities, including through postgraduate research. While there are exceptional women who continue the rigorous pursuit of gender inequality in a diversity of social and political contexts, inequalities in the classroom are replicated in the workplace and compounded by women's disproportionate domestic responsibilities. I would argue that there is some urgency for research that returns to grassroots, identifying with the majority of women and girls, including those with the cumulative disadvantage of gender, combined with one or more of the following constraints - socio-economic status, ethnic background, cultural group, geographical location and/or (dis)ability - and clearly demonstrating the deleterious impact of most government policy and funding. The concept of mainstreaming girls' and women's issues within broader education policy development has very frequently resulted in tokenism, invisibility or 'downstreaming' (Aller, 1989).

1.3 Developing a perspective

The theme for my research evolved, as topics so frequently do, from past experience, personal interests, contemporary discussion and opportunity. As a very active participant in the Equal Opportunity [EO] movement of the 1980s and 1990s, I had created a range of awareness-raising opportunities, which included the preparation of reports for staff, school council members and the regional EO unit. One unpublished report, conducted to raise awareness of gender issues with members of the School Council, was titled *Don't Step on My Shoes*. This focused on a school-wide data collection of career aspirations for all girls and boys at each grade level in a local community school in Victoria and the results were a pertinent indicator of the prevailing gender stereotypes. The gendered nature of the responses recorded for both girls and boys was evident at the Prep level (five-year olds) and persisted through all grade levels to Year 6. Another key observation illustrated the increasing narrowing of options nominated by girls as they progressed through primary school, which was in stark contrast to the boys whose range of aspiring careers broadened at each grade level. Further, at all levels the diversity and creativity of boys' selections was not mirrored by girls. And while a number

of girls nominated mother as their prospective career of choice, there was no evidence of aspiring fathers.

Although this was an informal project, the evidence formulated numerous hypothetical questions, all worthy of further research. For example, how accurately do career aspirations in primary-aged children relate to eventual career outcomes and would similar findings be gleaned from studies in locations which were, perhaps, socio-economically and geographically different? From a social policy approach, it would be invaluable to compare and contrast general trends in career aspirations in previous decades, and understand the contributing factors to any measurable change. Importantly tracking the underpinning variables which impact on children's choices might prove instructional in developing appropriate curriculum policy – and resources – for enhancing gendered options.

However, at that stage, other issues crowded my agenda, and I did not actively pursue the topic. My interest in the theme of career choice was predominantly rekindled by two factors: the introduction of the Workplace Relations Amendment Act (2005) commonly known as Work Choices, and my employment as the Equity and Disability Officer at Tropical North Queensland TAFE. The connections that linked education, employment and career counselling seemed startlingly at odds with the urgency for girls and women to attain economic security and independence. An article in *The Gen* more than a decade ago, titled 'Take twelve girls', presented a persuasive case incorporating Bureau of Statistics data: Girls now at school have a potential paid employment lifespan of 30 to 40 years. Yet many schoolgirls still regard work as something to fill the gap between leaving school, getting married and having children (The Gen, 1992).

The article further indicated that of twelve girls:

- three will need to work alongside their partner to keep their family going
- three will get married and divorced soon after
- one will have a partner who is physically violent and/or a substance abuser who is unable to sustain employment
- one will need to work because of her partner's unemployment
- one will never marry or be in an ongoing relationship
- one will be widowed
- one will never have a child

- and only one will be supported by her partner for her entire adult life.

(ibid)

While it may no longer be considered necessary to defend women's right to income security gained from paid employment, women's connection to the paid workforce can be tenuous. Despite the emphasis on equal opportunity and gender equity reforms which have resulted in significant changes in workplace participation by women, gender differences – in pay, status, security, access to training, promotion and working conditions – persist. Striving for rights to, and in, paid employment is frequently represented as a struggle of previous generations, obsolete on the current political agenda, but there has been an erosion of women's equality over the past decade which may be difficult to reverse (Summers, 2003). The lifetime earning profiles (Figure 1a) demonstrates the nature of the paid labour market, where the disadvantage for women in lifetime earnings is stark, even when their qualifications or education is more extensive than their male counterparts. This is directly linked, not to pay inequities as such, but the occupational choices women make to participate in stereotypically female areas of employment. This contributes to severe disadvantage for women during their worklife span, as well as in the accumulation of assets for the post-employment period.

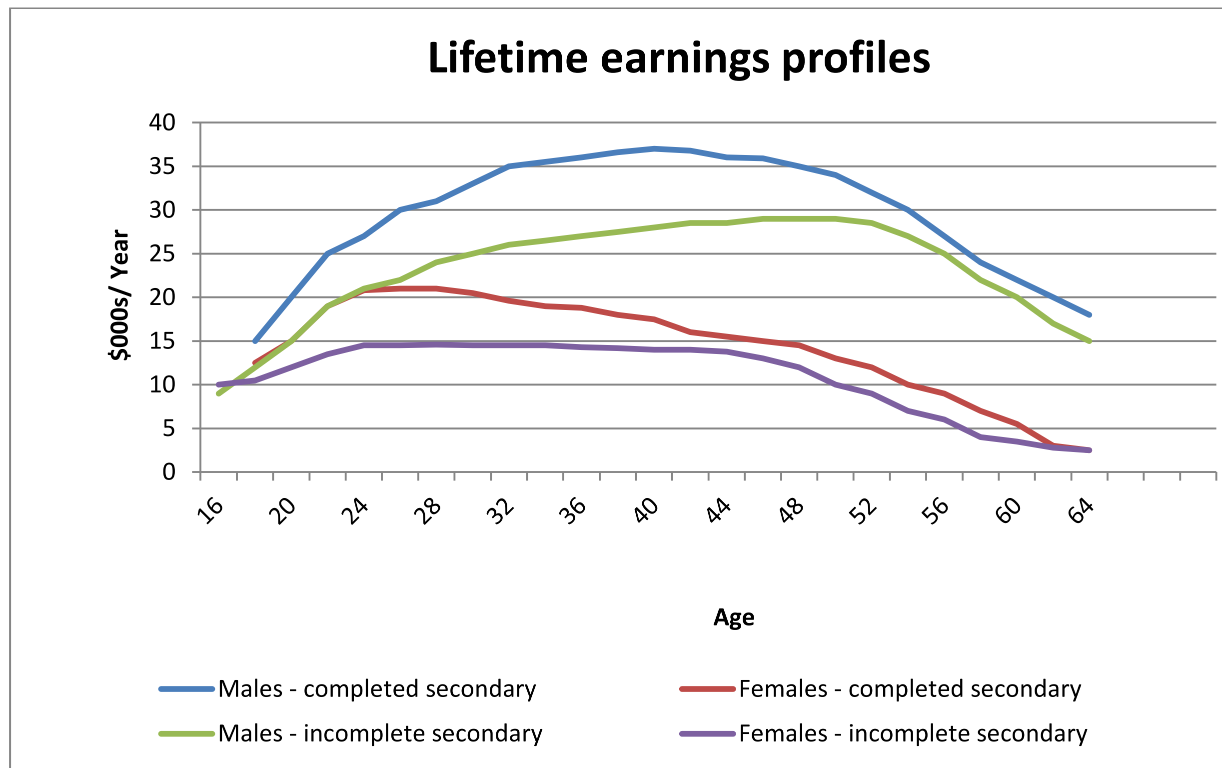


Figure 1a: Lifetime earning profiles Dalley-Trim (2008)

Nevertheless, the participation of women in the labour force is more than just a financial enterprise. As Anne Else emphasises (1996, 57):

> …that's not the whole story. Women want paid work for the same reason as men do. They want to earn money, be with other adults, use their skills, and be part of the world beyond their own family circle.

For many women participation in the labour force develops self-esteem, fosters independence (not just economic) and results in a range of other tangible and intangible personal benefits. Yet despite an incredible increase in their participation rates, the Australian labour market retains its reputation for gender segregation. Heather Davey (2004), a consultant in career development, acknowledges an increase in women entering non-traditional occupations, but highlights that this is reflected mainly in a few professional career strands. Her observations, while focusing on the Canadian labour market, are mirrored by recent data cited in Australia (e.g. Morley, 1998) which identify the minimal gains in the scope of careers pursued by women. It is certainly evident in the vocational educational and training sector in which I was involved with female apprentices accounting for only 14.9% of the total in 1996 – and over half of those apprenticeships held by women in hairdressing (Morley, 1998).

The patterns and procedures which normalise gender difference amongst Vocational Education and Training [VET] students were emphatically highlighted in an encounter at Tropical North Queensland Technical and Further Education Institute [TNQ TAFE] between a career counsellor, a potential student, and her mother. After numerous suggestions for courses had been discussed and dismissed, the mother exclaimed with equanimity, "If only she was [sic] a boy, she could do an apprenticeship". The VET sector, despite its inherent centrality to workplace pathways, is addressing the issue of gender in an ad hoc manner, and gender segregation of areas of study persists. In a comprehensive study of women in vocational education and training ATEC (2002, 2) concluded that:

> . . . [T]he pattern of women's participation in training mirrors their participation in the labour market. Women are clustered in 'feminised industries' and at the lower end of the pay scale . . . Women are still less likely to have fulltime employment after graduating from VET courses . . .In addition, women are more likely to be studying at the lower certificate levels.

Data from student enrolments on the Cairns Campus of TNQ TAFE in a range of specified courses is indicative of this gender segregation [see graph below], and while pursuing this

trend is outside the parameters of my current research, it is certainly worthy of more rigorous evaluation and analysis.

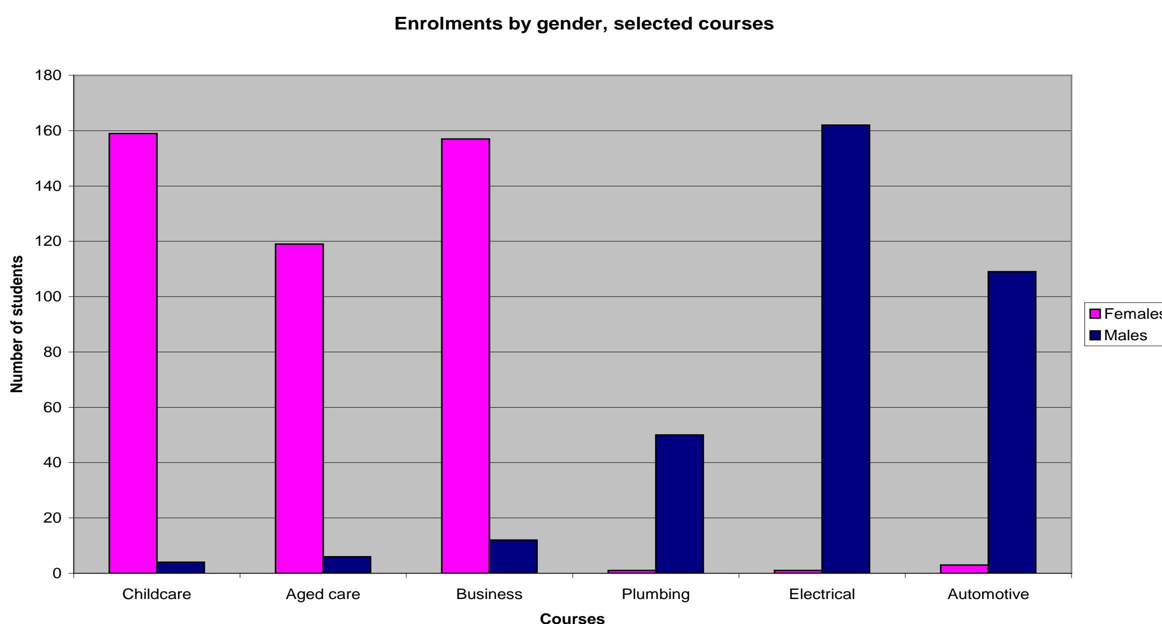


Figure 1b: Cairns Campus, TNQ TAFE: Selected Course enrolments, by gender, 2006

Ford (2007)

The integration of apprenticeships and traineeships into a revised category of New Apprenticeships in 1998 resulted in a proportionately dramatic increase in females in training from 20 to 36 per cent, but again the occupational segregation by gender apparent in the workplace was replicated in enrolment statistics. The NCVER (2006) noted that for the five year period from 1995 to 2000, two thirds of females in New Apprenticeships were clerical, sales and service workers with minimal training and poor job prospects, whereas almost two-thirds of male New Apprenticeships were concentrated in traditional trades to address the skills shortage. The continuing trend to gender-stereotyped apprenticeships was criticised by Adele Horin (2005) who indicated the proportion of girls considered 'at risk' (i.e. unemployed, working part-time or withdrawn from the labour market) had increased markedly in the preceding five years and continued to be far higher than for boys.

The promotion of vocational education in schools has gathered momentum with the introduction of dual-sector classes for secondary students (Students remain in a secondary school setting, studying a combination of secondary core subjects and a selection of modules

from VET programs). Although this option was essentially introduced to improve post-school options for students designated 'at risk', involvement in a VET schools program precipitates gendered career selection at an even earlier age. Despite considerable effort to increase female participation in non-traditional areas of the workforce, these interventions have achieved only minimal success (Cumming, 1997). Research by Taylor, Butler & Woolley (2005) identified a concerning lack of awareness amongst girls of contemporary employment trends, job availability, pay rates and the potential sustainability of the choices they make For many girls, including those participating in school based VET programs, entry into traditional areas of paid employment is not identified as problematic. This opinion is echoed by Kay Boulden (2000, 14) who maintains that "[y]oung women will be well positioned to take advantage of new opportunities created by changing labour markets only if they know what these opportunities are and have the understandings, attitudes and skills to position themselves well".

A number of factors therefore underpin the imperative for change:

- Social justice and the recognition of everyone's right to develop their capabilities and achieve professional and career outcomes commensurate with their ability and aspirations (Human Rights Commission, 2006)
- 'A high quality education for girls is a mainstream professional responsibility for all educators in all primary and secondary schools and school systems' (National Action Plan for Girls, 1993)
- The promotion of women's right to economic independence and addressing the intergenerational cycle of poverty
- The current 'skills crisis' where labour force demands in many areas remain unfulfilled
- The effective utilisation of labour force potential to maintain national productivity growth
- Outlining the need for systemic policy and processes that recognise the urgency for lifelong learning in a rapidly changing workplace
- Above all it is about action by educators – in the classroom, at the school level and in a leadership role in the wider community

Rather than dismissing gender as peripheral to the discussion I would argue that it is essential to clarify how and why equity and diversity are integral to the workplace and the classroom and the manner in which such principles should be included in any national industrial relations policy or any national education policy. Such an approach necessitates an understanding of the constructs of gender, as well as race, ethnicity, social class, family structures and educational opportunity. Policy about and for women and girls must come from a clear focus on women, acknowledging the full diversity of realities and experiences of Australian women (Taylor, Butler & Woolley, 2005).

1.4 A guided tour of the project

Occupational attainment, which is directly linked to educational outcomes, is a major determinant of individual levels of consumption, self-esteem and societal position (Brown, Sessions & Taylor, 2004), and it seems self-evident that occupational attainment has its foundations prior to reaching 'working age'. Simplistic analysis of senior level examination results and tertiary education conceals the evidence that, despite the programs and the rhetoric, education at all levels sustains traditional notions of gender construction that are reflected in the labour market (Arnot, 2002; McLeod, 2004). An editorial in *The Gen* (1993) identifies how schools are a microcosm of society which shape attitudes, values and expectations that contribute significantly to gender inequities. In my research on career aspirations, it was this 'microcosm' which I sought to understand and clarify. I consider my perspective feminist, as intent to start from personal experience clearly identifies my standpoint (Reinharz, 1992) and the subjectivity associated with the construction of knowledge – the facts. In developing a framework for this project I am attempting to connect research and action as "[F]eminist research must not be abstract and removed from the subject of investigation, but must instead have a commitment to working towards societal change" (Brayton, 1997, np), a viewpoint I will clarify more extensively in the second chapter on methodology.

Despite three decades of equity policy in education a range of factors continues to contribute to differential outcomes for girls and women in the labour market. This research aims to demonstrate how the intersection of socialisation, curriculum and education practice impacts on career aspirations and the implications this has for pre-vocational education, classroom

practices, career counselling and curriculum development. While there is a reasonably extensive literature on educational choices, career aspirations, career counselling and transition from school to work, much of the discourse related to gender is dated and the emphasis is generally on students at the secondary school level (eg Lewis,1992; McMahon & Watson, 2005; Teese, Davies, Charlton & Polesel, 1995; Colley,1998; Wyn, 2001). However Roger Herring (1998) points out that the "…importance of the elementary school years as a foundation for children's later career decisions underscores the necessity of planned attention to the elementary student's career development". As a practising classroom teacher I was immersed in the gender politics of the early childhood setting, and I observed first-hand what Glenda McNaughton (2000) describes as the resistance to pedagogical innovation and the marginalisation of gender constructs at this level.

To comprehend the potential for intervention thorough 'critical collectivism' (McNaughton, 2000, 181) it is necessary to extend existing theoretical frameworks of just how young children perceive self, work and career aspirations, and consequently contribute to an expanding knowledge base. I aim to: define how children understand concepts such as work and career; describe children's gender-role beliefs and attitudes regarding specific occupations; demonstrate children's awareness of women's and men's gender-typed occupations; and where possible illustrate informal connections between children's occupational aspirations and aspects like parents' occupational location and family structure.

Children's understanding of gender roles and their adoption of what is perceived as appropriate gender role behaviour is multidimensional, including aspects of socialisation, cognitive development and social class inclusion (O'Brien et al., 2000). While much of the research in gender construct and gender related schemas in the area of vocational choice focuses on the post-primary student, analyses of sex-role stereotypes demonstrate that gender is already salient amongst pre-schoolers (Kimmel, 2000; Marshall & Reinharz, 1997). Remember that introductory story? "Developmental research by Linda Gottfredson found that children begin to eliminate career choices because they are the wrong sex-type between the ages of six and eight" (WEEA Resource Center, 2002). As Michael Kimmel (2000, 151) argues, children's gendering experiences precede school attendance, but schools are organised to 'produce gendered individuals', both through the official curriculum and what is referred to as the hidden curriculum. Further development and a review of existing research literature will compose the third chapter.

In chapter four I present details of the data collected, in both written and pictorial formats, and use observations and comments from the children who participated to provide texture to this information. Although my research is compact, hopefully it may provide a model for 'others' interested in the topic to replicate the study in different settings – geographically, culturally and socio-economically – for comparison. Accumulating irrefutable evidence is challenging but this study has already aroused the interest of both educators and parents, and contributes to an evolving discussion centred on women's location in the paid employment continuum.

Analysing and discussing the research results will also be a focus in Chapter 4. The small scale of this project does not negate its relevance to the discussion of the gendered nature of education environments and practices. Educators sensitive to the pervasive impact of gender in all aspects of the school community face an enormous task of challenging the social context in which education is structured. Linking the results to previous research will hopefully identify the precarious possibilities for girls when gender disadvantage becomes shorthand for disadvantage for boys.

My lofty objective, in chapter five, is to reclaim the space and reassert some self-evident principles about girls in education, the constraints of educational settings and how this expands into lifelong disadvantage for many girls. No small task.

Chapter 2 Methodology: The best laid plans . . . .

> Facts are not given but are constructed by the questions we ask of events. All researchers construct their object of inquiry out of the materials their culture provides, and values play a central role in this linguistically, ideologically and historically embedded project that we call science.
>
> Patti Lowther (1991)

2.1Background to the study

This research project is framed very consciously to provoke interest, invite comment and re-energise the dialogue, not only about gendered career aspirations and workplaces but the generalised context of gender in education In the past decade there has been a retreat from feminist discussion which places girls and women at the centre of theory and inquiry (Reinharz, 1992) caused by the moral dilemma of 'the boy question'. I would contend that educational concerns related to girls and boys frequently overlap, but where there is divergence the promotion of competitive stridency is unproductive (Lingard & Douglas, 1999).

Overwhelmingly, my objective is to produce a document that gains and sustains the reader's attention, encouraging engagement with the issues in a user-friendly structure. The potential reading audience will hopefully include academics, higher education students, classroom teachers and counsellors, education administrators and parents and carers. Additionally it may provide a catalyst, particularly for classroom teachers, to consider gender-based action research and subsequent change within their individual classroom, within their school or even within the education district – the accumulation of an undeniable body of evidence that confirms that women and girls have not yet 'got it all' (Dalley-Trim, 2008).

This project is premised on a feminist understanding of subjectivity of both the researcher and the research participants that acknowledges and values the role of the researcher in interpreting and defining reality (Klein, 1983) and identifies that the reality proffered by dominant paradigms is only one interpretation (Reinharz, 1988). As a researcher, I am prepared to make my previous gendered experiences visible, as these impact critically on

political and methodological choices and how the study is defined (Jarviluoma, Moisala &Vilkko, 2000).

The myth of the universal girl or woman, uniformly subordinated to the patriarchal order and therefore constrained by gender and notions of essential identities, is challenged by post-structural feminism (Baxter, 2003). While the concept of gender differentiation is superimposed on diverse aspects of our lives, including in the labour market, through sustained unequal power relationships (Bem, cited in Baxter, 2003), females have continued to destabilise restrictive, gendered practices (Baxter, 2003; Nicholson & Seidman, 1995). Nevertheless, the persistence of stereotypes is compelling evidence that woman, while represented as a term of plurality, indicates a shared socio-political identity (Thornham, 2001).

Persuasive argument exists supporting the notion of a distinctive feminist epistemology that incorporates the political into the 'everyday lives' or lived experience of women (Ardovini-Brooker, 2002), but that does not infer a specific feminist method. Feminist research explores a multiplicity of tools for 'gathering evidence' in the process of discovering, sharing and analysing 'facts' prefaced on women's values and experiences (Ardvoni-Booker, 2002; Reinharz, 1992; Roberts, 1981). In this research I am working from a knowledge of women's economic disadvantage apparently perpetuated by a range of social 'inputs' including education policy and practices. Consequently, I have incorporated both interviews and some statistical data to develop a viewpoint, guided by context and situation in my choice of methods (Brayton, 1997). The use of quantitative methods – counting the numbers - while sometimes represented as problematic for feminist research, can show patterns of attitudes and beliefs that counter existing norms and assumptions (Brayton, 1997; Reinharz, 1992). Arguably the use of quantitative data or more accurately, numerical analysis, has the potential to more effectively influence public policy. Such an approach

> . . . is predicated on the understanding that governments and policy makers are less attentive to the concerns of individuals, as reflected in qualitative work . . . and that quantitative research is needed to measure the extent of social and political problems.
>
> Fonow & Cook (2005)

2.2 The preliminaries

Leedy and Ormrod (2005) suggest that once you know the 'question/s' research should be practical and viable, linked to a precise and appropriate plan and conducted within a feasible design framework. I was particularly keen to represent children's understandings about work and career, recognising that what I might glean may be transient but provides a glimpse *at that time.* The nature of my project claims neither generalisability nor absolute replication, but it would be instructive to observe if similar results were achieved in different locations and with children of varied socio-economic and cultural backgrounds.

2.2.1 The setting

I initially contacted Richard Ruddell, the Principal at Redlynch State School [a P-12 school in a suburb of Cairns] to explain the project that I was planning. At a subsequent meeting with him, I provided more formal details of my proposed study, including an assurance that there were no potentially negative conflicts for the school, and that my findings may realistically provide input to curriculum content. He was extremely welcoming and supportive. With this verbal approval, I submitted an application to the Strategic Policy and Education Futures Division of Education Queensland, who accepted my proposal with a few minor inclusions [for example, the 'Informed Consent Form' for Year 7 students in addition to the form for their parents]. As the application was for a single site [Redlynch State School] I was permitted to continue my project based on the Principal's and School Council's confirmation of approval. I also indicated that I held a current Blue Card for working with children.

At this stage Richard introduced me to Belinda Everett, the Associate Principal of the Middle School who would liaise with me regarding the project [Ms Everett has since accepted advancement to another school in the region]. She sought expressions of interest from teachers at the Grades 1/4/7 levels, and distributed the paperwork to each child in the nominated classes. Not only did Belinda promote my research with staff and parents, which included a covering letter for parents, she also ensured that I had adequate opportunity to pursue the interactive aspects of my research with the children who joined as participants.

Redlynch State School is approximately 15 km west of Cairns, centred in a rapidly-developing residential area. It is a well maintained and resourced school, located on a large site with a

scenic backdrop of tree-covered hills. It has a diverse parental occupation profile, characterised by many self-employed tradespersons. There is no school zoning in the region, and Redlynch attracts a number of students from other suburban locations.

2.2.2 The participants

Six class teachers volunteered their grades for the project, two at each of the target levels [Grades 1/4/7]. All children whose parents gave consent were included in the research. The participation of both girls and boys was prefaced on the understanding that gender analysis is relational and requires a contextual basis (Jarviluona et al, 2000).

Grade Level	Girls	Boys	TOTAL
Grade 1	10	10	20
Grade 3/4	11	7	18
Grade 7	14	6	20
TOTAL	35	23	58

Table 1a: Participants, by gender and year level

2.2.3 Ethical guidelines

James Cook University requires that students undertaking research involving human subjects apply for ethical approval from the Ethics Review Committee. A copy of the Ethics Approval form is included as Appendix 2A.

In common with other researchers, the education researcher has moral agency and is subjectively guided by personal views, opinions, beliefs and values which are particularly relevant when working with children because of the personal relationship between participants and researcher (Hitchcock & Hughes, 1995) and the imbalance of power. The legal and ethical constraints for a researcher relate to the students (or participants); parents, guardians

and families; the research/education profession; and society in general. Balancing the principles and claims of competing interest groups is a process which requires rigorous reflective practice and a commitment to the primacy of the child/children's interests and well being (NZTC, 2004).

In addition to the explanatory letter from the Assistant Principal, each child in the grades included in the study received a plain language statement [Appendix 2B], an Informed Consent form to be completed by a parent or guardian [Appendix 2C] and for those in Year 7, an Informed Consent form for the child [Appendix 2D]. These documents ensure that the participants understand the nature of the research and what is expected of them; identify any potential risks from the research and indicate that withdrawal from the research is an option at any stage (Coady, cited in MacNaughton *et al*, 2002; Newman & Pollintz, 2002). Providing Informed Consent forms for students in Year 7 acknowledges their agency and supports the evolving notion of 'research with children' (ARACY, 2009; Lloyd-Smith & Tarr, 2000), which I will include in later discussion. When I was introduced to each group of children in turn, I reminded them about the project and its aims, and re-emphasised that they could choose not to continue at any stage

2.3 Continuing the process

In discussing the implementation of gender as an analytic dimension in research, Joey Sprague (2005) argues for the integration of theory and research into broader discipline frameworks through a *gender lens*, and she recommends three basic steps:

- *Ask passionately*: select questions for which people really need an answer, where answers might make a difference
- *Analyse critically*: avoid self-perceptions as a decontextualised knowledge-producer and meet the challenge of colleagues with critical viewpoints
- *Answer empoweringly*: report about research in a compelling manner. "Write so that others will want to read your work".

Adapted from Sprague (2003)

Similar ideas are represented by Reinharz's ten themes (1992) of feminist methodology [Appendix 2E lists all ten themes], particularly the recognition of feminism as a perspective not a method, and as research conducted in the pursuit of social change.

2.3.1 The survey

I have designated the first element of the research tools I utilised as a 'survey' although it is more in the context of a checklist [See Appendix 2]. To avoid any difficulties with literacy or confusion about the occupations listed, I chose to conduct the survey individually through oral enquiry. For occupations on the list [n= 20] participants were asked to classify each according to whether they were jobs for:

- both men and women
- men
- women
  or
- don't know.

There was no time limit and children had the opportunity to ask for clarification of specific work roles, or comment on their decision. Responses were recorded for each participant, with only the grade level and gender included as identifiers: individual children are not identifiable from the record sheets.

The list of occupations was compiled from my previous experience as a lecturer in the undergraduate Women's Studies major, including a unit titled *Women and Work*, at Deakin University; from my role in student services at Tropical North Queensland TAFE; and through documents such as *Non-traditional careers for men* and *Non-traditional careers for women* (College of DuPage, 2005) and *The Apprentice* (Equal Opportunities Commission, 2005) – and of course a lengthy career as an early childhood educator. In this context it is not a scientifically produced or definitive list, but it provides a range of occupations which are hopefully familiar to the participants and potentially 'gendered'. To accommodate the experiential level of the participants I used, for example 'judge' rather than 'magistrate'; 'vet' rather than 'veterinary surgeon' and 'computer operator' rather than 'computer technician'. It is certainly a list that would be easily utilised by any classroom teacher interested in the gender trends and career aspirations of the children whom they teach.

The collation of results from this data will provide textured layers of information that may be interpreted and analysed in a number of ways, including comparing girls and boys, and younger and older students; identifying specific occupations for their gender-rating; and

considering overall aggregates. These interpretations are described and analysed in detail in Chapter 4.

2.3.2 The interviews

> . . . the operation of qualitative research at a small-scale level makes it especially suited to assisting change at grassroots level, where policies are put into practice.
>
> (Finch, 1986).

Interviews are a valuable tool for gaining information through a systematic process of talking with participants. For this project I opted for semi-structured interviews which provide a framework for dialogue but permit flexibility for the participants to expand on what is included and have some control over the process (Leedy & Ormrod, 2005) It also provides opportunity for the researcher to seek further clarification as appropriate (Reinharz,1992).

At each grade level I interviewed the first five girls and five boys on the lists.

I have included a pro forma question sheet as Appendix 2G which outlines a suggested progression with an understanding that not all all aspects may be covered with each participant. Broadly the questions are grouped into themes:

- Q1-3: children's definition of work – demonstrate the participant's understanding of the concept of work and basic recognition of the need for paid employment
- Q4-6: children's knowledge about who works – identify the work options for women and men in the paid labour force
- Q7-13: children's projections regarding their own potential participation in the paid labour market – relate to children's thoughts about their adult roles, choice of career, training and gender-alternative choices

In planning, I allocated between 10 and 15 minutes for each interview, and with each participant's agreement conversations were recorded on tape. Interviews were conducted in withdrawal areas, adjacent to the children's learning areas, to ensure they were in familiar setting that maximised their feelings of safety and confidence. It was not expected that children would be distressed by the interview, but there was a minimal possibility that a child/children may disclose sensitive personal details. In these circumstances my response would be whatever was in the best interest of the participant.

Information was tabulated and transferred from the tapes for analysis.

2.3.3 Confidentiality and security

The researcher's responsibility for security and confidentiality is even more profound when working with children than when working with adults (Lindsay, 2000). All the information that has been collected about, and from, participants is stored in a locked file which is only accessible to me. Surveys, taped interviews and record sheets are anonymous and are not linked to participant details.

In presenting the results of this project, no participant names are revealed: children are identified by Year Level and an alphabetical indicator. Additionally, as this is a relatively small study, extreme care has been taken to ensure that no participant could be identified in the research report from the information they provided.

Chapter 3: Reviewing the literature

3.1 Introduction:

When I first contemplated this research, the issue that I found most perplexing was that anti-discrimination, equal opportunity, equal educational opportunity and equal pay legislation were first introduced about thirty years ago. Women are a substantial proportion of the paid labour market, their educational standards are comparable, but still they lag behind males in the workplace: in participation in certain occupations; in income; in advancement and in status (Cumming, 1997) – and they are still working the 'double shift'.

> Education is about the transmission and transformation of culture on the one hand, and about the development of understanding relating to the human condition and of ourselves on the other. Schooling of itself cannot change society or the relationships between the sexes. But it can help young people critically examine both and sort through their priorities, taking into account the realities of the situation as it presents itself to them and appreciating their own potential as agents in transforming it.
>
> Jean Blackburn (1981) cited in Schwarz, Allard & Mathews (1990)

Teasing out the diverse, gendered elements in a critical examination of career aspirations is the objective of this research project.

3.2 What is included in this literature review?

Interpreting 'the problem' from a broad feminist perspective involves a trans-disciplinary approach, allowing for flexibility, intuitive discourse and a multi-stranded context. The implications for assembling a literature review clearly relate to relevance, focus and the capacity to analyse and include documents with diverse, and sometimes conflicting, viewpoints. To provide background for the discussion of this relatively contemporary scenario requires an element of historical understanding, evolving theory and practical policy. My response, after initially feeling rather overwhelmed by the sheer volume of literature, has been to create a framework of linked themes that identify areas of divergence and convergence, and provide information of underpinning theories and ideologies, liberally

sprinkled with critical analysis. Many of the arguments will be further critically analysed and discussed in the dialogue that follows the research findings.

While emphasis in a literature review is on "what has been published on a topic by accredited scholars and researchers" (Taylor& Proctor, 2007, np), I have also included examples of 'cultural texts'. Reinharz (1992) argues that feminist analysis of cultural products has the potential to demonstrate a 'pervasive patriarchal culture' and they do more than just reflect gender norms: they actually contribute to shaping normative assumptions. Examples of texts relevant to my research may include government or organisational policy statements, Ministerial reviews, legislative documents, media reports, articles and editorials, curriculum materials, cartoons and printed materials from special interest groups (Ford, 2008).

3.3 "G" is for gender

> Gender is a learned attribute as opposed to a biological trait. In other words, though one may be born male or female, one learns to be a man or a woman.
>
> PAHO (c2001)

> Childhood is a gendered experience . . .
>
> Gendered childhoods (2005)

The following sections present issues that are obviously linked and sometimes the concepts and perceptions over-lap. My aim is to present a framework for discussion, to include diverse viewpoints and complex perceptions in a format that is logical and accessible to the reader, and a reminder that while gender is only one lens of difference (Davis, 1999) it remains of critical educational significance (Dalley-Trim, 2008).

3.3.1 Defining the term

In the education landscape of the post 1970s to the early 1990s, a range of policy documents and funding initiatives have focused on aspects of gender, for instance *Girls School and Society* (1975) and *The National Policy for the Education of Girls in Australia* (1987) which invariably related to the position and identity of girls: in algorithmic terms gender = girls. Gender is not a signifier of biological sex, although the designation of a binary sex identity –

female or male - has specific implications for gender representations. Starr (2000, np) emphasised that gender "is a social process constructed on hegemonic notions about maleness and femaleness, which comes into play in the practices and texts of everyday life". This identifies the social and cultural environment, in all its connotations, as a pervasive producer of feminine/masculine behaviour through the ascription of normative assumptions (Musolf, 2003; Yelland, 1998).

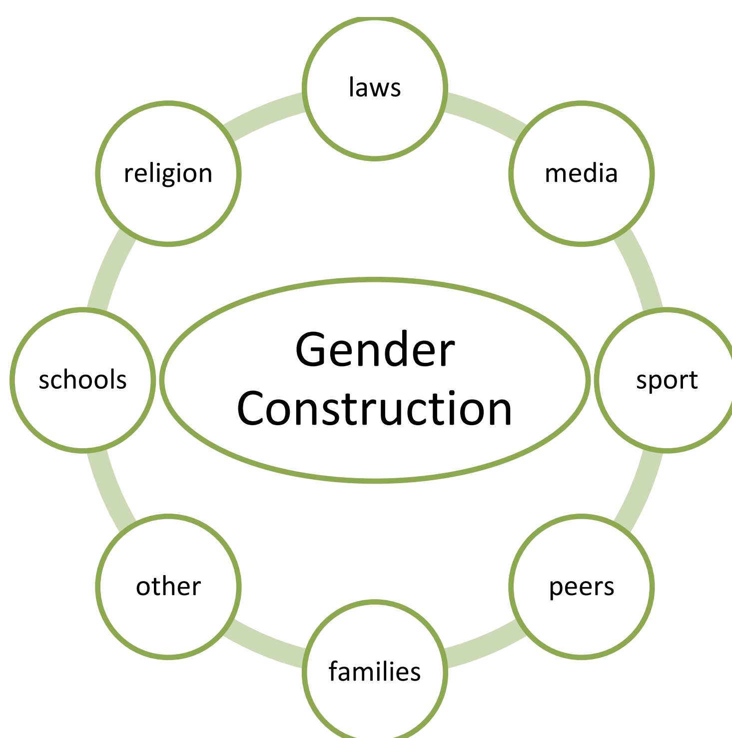


Figure 3a: The construction of gender **Adapted from Education Queensland (2002)**

The pictorial representation above highlights the dynamic nature of the gender constructionists' perspective, with a range of competing influences which impact on evolving gender identities. The input from each of these options may appear random, but culturally-accepted dominant constructs of masculinity and femininity are extremely influential (Jarviluona et al., 2000; Musolf, 2003). Acknowledging gender as a construct makes the perception of biological determinism extremely problematic but the apparent naturalness of generalisations about gender identity can prove resilient (Clark, 1989; Education Queensland, 2002).

Although the biological determinist view of behaviour attributes is rarely implemented in contemporary debate, vestiges of this argument for female/male difference are evident in

many common stereotypical declarations [See 1.3]. However Mari Mikkola (2008) argues that sex relates to biological features while gender denotes social factors. This approach is iterated by psychologist Jennifer Kretchma (2009), with a proviso that despite the emphasis by sociologists and educators on gender as the behaviour-shaper, there is some inter-connectedness between biology and society. She further suggests that there is no consensus on the precise interpretation or application of the labels sex and gender, and confusion may arise because of the position adopted by different theorists.

3.3.2 Theorising about gender

> My sardonic joke is that for 12 years we inculcate gender in school systems without talking about it, and then if you make it to college, you can specialize in it. But we should be starting to talk about it in kindergarten . . . By fourth grade, [kids] don't have their armour up yet and they are just raring to go.
>
> William Pollack (cited in AAUW, 2001, 36)

Theories of gender development and socialisation demonstrate an evolutionary pathway which dominates the discussion and gives primacy to three major strands: psychoanalytic theory, social learning theory, and cognitive-development theory. More recently a gender schema theory, a combination of social learning and cognitive development theories, which identifies the individual as an active learner of cultural conceptions of the feminine/masculine dichotomy within existing social structures has been proposed (McCredie, 2011; Musolf, 2003).

Theory	Characteristics	Comment
Psychoanalytic	Suggests some aspects of gender identity are largely subconscious psychological processes More refined model of Freudian theory Reinforces gender stereotypes as 'given'	Is the only theory not linked to learned behaviour – it 'happens' to the individual Used only infrequently in educational discussion (eg What about the boys?)
Social learning	Individuals are reinforced for gender appropriate behaviour Reinforcement may be positive or	Most dominant theory in the 1950s and 1960s Individuals are passively

	negative Learning linked to observation and imitation of behaviour of same-sex adults	involved in socialisation
Cognitive development	Identified as a developmental process Active participation by individual in own gender construction Rigidity of gender definition in early childhood becomes more flexible with age and experience	Idea of gender constancy is seen as problematic as gendered behaviour precedes development of gender constancy
Gender schema	Gender is used a means to process information about the world Polarisation of elements of appropriate female/male behaviour Schemas are androcentric and validate masculinity as the norm	Provides a framework for examining the processing of gender information Individuals may choose not to display gender appropriate behaviour

Table 3a: Socialisation theories **(Summary from Kretchmar 2009)**

Stockard (1999) supports the notion that all these theories may contribute to the explanation of gender socialisation without being conclusive and/or exclusive, and it is the application of these understandings to real-life structures which should direct discussion. The preceding table, adapted from the text of an article by Jennifer Kretchmar (2009), provides a shorthand view of prevailing theories and their more salient features.

The significance of recognising and accommodating the diversity of gender transmission models and gender differentiation will become evident in some of the themes that I will pursue throughout this chapter. As Bussey and Bandura (1999, 676) emphasise:

> Gender development is a fundamental issue because some of the most important aspects of people's lives, such as the talents they cultivate, the conceptions they hold of themselves and others, the sociostructural opportunities and constraints they encounter, and the social life and occupational paths they pursue are heavily prescribed by societal gender-typing.

This quote clarifies the task confronting the researcher in the field of gender and gender identity: to deconstruct arguments, programs, viewpoints and policies, and to navigate a pathway forward necessitates placing these within the gendered social and educational framework. How are the lives of both girls and boys directed by gender-linked educational opportunities and what potential possibilities are there for creating sustainable change? 'Doing gender' is intrinsically related to the power and position of those whose voices are

being represented, and the experiences and understandings they bring to the discussion (Alloway, 1995; Clark, 1989).

At the pre-school and early school years stage, research suggests a stronger gender focused identity for boys when compared to girls, and this is translated into more rigidly held stereotypes of comparative roles (Lloyd, Duveen &_Smith, 1988; O'Brien et al., 2000). Gender stereotypes are an often inaccurate overgeneralisation of the traits and expectations that comprise the social mind's view of what defines a female or a male, which are typically pejorative for females (Ruth, 1997). Children of both genders, at the pre-school stage responded negatively to what they considered non-gender-conforming behaviour, and were likely to censure other children, while demonstrating personal gender self-regulation (Bussey & Bandura, 1999).

Tracing the evolution of gender as a field of study in education Jo-Anne Dillabough (2006) suggests that initially feminists provided 'conceptual tools for expanding the boundaries of gender research' which identified schools as the sites for potentially addressing gender relations. Moving beyond the seemingly innate characteristics of femaleness to a focus on the relationship between the gendered individual and social structures represented a transition to a theoretical agenda based on social and political imperatives (Dillabough, 2006). This movement towards broader theoretical concerns, embracing discussion of gender identities and gender theories of education, provides cultural context and problematises the concept of a fixed, immutable gender identity (Dillabough, 2006).

3.3.3 Socialisation and stereotyping

Kindergarten is a triumph of sexual self-stereotyping.

Vivian Paley (cited in Marshall & Reinhartz, 1997)

The multidimensional input into gender identity and knowledge, represented in Figure 1 (*above*), illustrates that social learning begins at birth (or even soon after conception!). Gendered behaviour is not fixed and can be at variance between cultures, within a culture or at historically significant times (Ruth, 1997; Yelland, 1998). Frequently the stereotypes which are perpetuated are so 'normal' that they are effectively invisible but transgressing gendered expectations can provoke instant negative responses. The assignation of gender specific roles comprise a set of expected behaviours and traits which are attributed to an

individual or a group (Clark, 1989; Rennie, 2003) and frequently are presented as stereotypes or 'pictures in our heads' [for example, girls play with dolls; boys are boisterous]. Further Ruth (1997) suggests that stereotypes affect both the stereotyped group and those with whom they interact, and directly affect behaviour.

While many educators and educational researchers have incorporated gender into their studies, Robinson (1992) argues that routinely their approach embraced the normative, perpetuating dominant assumptions about gender based behaviour and locating girls and women as the marked or variant category. Rather than challenging stereotypes, this pseudo-validation of appropriate sex roles contributed to their perpetuation (Tatar & Emmanuel, 2001). Directing fundamental theoretical problems to consider gender differences has sometimes inadvertently magnified them and left unchallenged stereotyped extremes (Clark, 1989; Star, 1991).

There is a potential for socialisation based on culturally determined stereotypes to restrict the individual's development of a unique self. Patterns of behaviour, interests, career opportunities, appearance – the list is infinite – which are constrained by cultural expectations of what it is to be feminine or masculine have implications for both genders (Tong, 1992). Rita Freedman lamented the socialisation process where a girl ". . . is securely wrapped in a strawberry-shortcake universe: roses on her walls, ribbons in her hair, ruffles on her shirt. Early in life, the pink world starts to process the girls to value it" (Freedman, 1998). Before you laughingly and smugly dismiss this observation as a relic from a previous era, consider how eerily Sushi Das's words replicate the same image: "Meanwhile, corporations are capitalising on and also actively pushing a move towards *girlification* through mass consumerism. It's all pink, pink, pink from the minute they are born" (2010, np). Even pink Monopoly!

Gender differentiation, which results from a range of psychosocial determinants, is fundamental to our self-perception and consequently has the potential to direct our daily lives (Freeman-Greene, 2011). Bussey and Bandura (1999) emphasise the importance of these differentiations and observe that distinct values ascribed to individuals are based on perceived feminine and masculine attributes, with the latter routinely regarded as "more desirable, effectual and of higher status". Their research supported the notion that while some gender differences had a biological foundation stereotypes were almost invariably linked to cultural

design and structures. "Gender stereotypes shape the perception, evaluation and treatment of males and females in selectively gendered ways that beget the very patterns of behaviour that confirm the initial stereotypes" (Bussey & Bandura, 1999). So while gender is not a 'unitary monolith' they argue it does rather represent a self-fulfilling prophecy

Figure 3b: Creating the stereotypes **(See Notes i)**

A similar viewpoint is proposed by Judith Lorber (1994). Her research paper highlights the taken-for-granted familiarity of dominant stereotypes, so ubiquitous that only a 'deliberate disruption' focuses our attention on gender as a social construct based on prevailing values. They are not immutable (witness the recognition of the house husband) but the process of allocating gender characteristics and traits – the stereotypes – is 'legitimated by religion, law, science, and the society's entire set of values' (Lorber, 1994, np):

> As a social institution, gender is a process of creating distinguishable social statuses for the assignment of rights and responsibilities. As part of a stratification system that ranks these statuses unequally, gender is a

> major building block in the social structures built on these unequal statuses.
>
> Lorber (1994)

The social scripts which sustain gender difference fail to acknowledge areas of similarity and convergence and there is the possibility of potent censure for an individual who veers from the stereotype (Harter, 1999). Promoting this perspective is not shorthand for conspiracy theory but it clarifies the 'levels of voice' needed to destabilise the stereotypes and potentially create change (Harter, 1999; Shamai, 1994).

3.3.4 Agency

In a discussion paper, the Queensland Department of Education, Training and the Arts (2002) acknowledged that individuals are active participants in selecting, adapting and rejecting aspects of gender perpetuated by societal forces such as school or the media. The dynamic process of personal identity development is evident in an individual's relationship to external structures, but this does not discount the relevance of children as 'social actors with personal agency' (Carr, 1998; Education Queensland, 2002; Woodhead, 2008). However, Wyn & White (2004) contend that researchers and policy makers too readily represent young people as having the necessary power and control to consciously shape their future, while downplaying the persuasive impact of socialisation forces. In all areas of their lives children are bombarded with overt and covert messages about appropriate behaviour (MCreddie, 2011). Gender hierarchies and assigned attributes at the macro-level are legitimated through social interactions (Nilan, Julian & Germov, 2007; Starr & Gill, 2002), where the scripts have already been internalised; and evident at the micro level – the successful applicant for a job, the discrepancy in wage rates, who changes the nappies for example: from the most abstract structural variables of economic and political systems to the minutia of everyday life (Berheide, 2007).

To acknowledge the persuasive power of external structures on the attitudes and behaviour of the individual (Baker, 2009) does not discount the potential for resistance and personal agency: we are not 'trapped in stereotypes' but the impact of gender roles is discernable from early childhood and continues into the gendered labour market (Butler et al., 2002; McLaren, 1996). Nevertheless, while girls are expected to be the embodiment of feminine stereotypes, girls '. . . can take up different subject positions within competing discourses of gender that are available to them' (Robinson & Davies, 2010, np). The challenge for early childhood educators is to understand the processes implied by self-direction and individual agency and

promote an inclusive environment where children – perhaps especially girls – feel comfortable in exploring the options (Browne, 2004; DEWIR, 2009; Robinson & Davies, 2010).

3.4 The Education Environment

> Andocentric interpretations and culture have created masculine institutions and structures of domination where women had to (and still do) struggle for access, recognition, inclusion, equity, and equality.
>
> Musolf (2003, 246)

The introductory quotation in this section points to 'masculine institutions and structures' and the challenges they have posed historically for women. Arguably, for many centuries the concept of 'the educated man' very implicitly excluded women, particularly in formal provision and in recognition of the contributions made to accumulated knowledge. The sections that follow provide a glimpse of some of the issues related to the educational environment that may contribute to inequitable outcomes for girls, with a consequential influence on career aspirations and options. They are not designed to be definitive studies, as each of these issues could provide a discrete research topic on their own.

3.4.1 Gender equity

> . . . [I]deological views of society are translated into its institutions . . . And the complexities of the relationship between social class, families and education systems make contributions to the reproduction of inequities in society. Revisiting our understandings about how inequality, and in particular, gender inequality is produced and reproduced through schools . . . again becomes important so that it is possible to monitor, examine and challenge the implications of the current government's school education policies.
>
> Moyle & Gill (2005, 11)

The Federal Government document *Gender Equity: A Framework for Australian Schools* (1997) includes a brief definition of the concept of gender equity, which involves access to school education and a fair distribution of benefits and positive outcomes for all students. The brief description emphasises that gender equity and gender equality, while linked, are not interchangeable, as equality of treatment and/or opportunities ignores existing disadvantage.

The promotion of 'priority assistance' or identified affirmative action may be essential to achieving equitable outcomes, as 'equity doesn't just happen' (MCEETYA, 1994). Comprehending the distinction between these two terms provides foundational knowledge for the ensuing discussion.

Participants in an educational conference in 2001 summarised their viewpoint that equitable schools should be: moving beyond curriculum provision to consider aspects of equal access and equal outcomes; broadening career options to make choice a socially-acceptable option; and developing critical awareness of gender roles to encourage change (AAUW, 2001). The report from these proceedings noted that over its history, gender equity has gained in complexity and is ". . . inextricably enmeshed in and shaped by other aspects of social identity, including race, ethnicity, social class, region, immigration status and sexuality" (AAUW, 2001, 8). There is no universal student, nor universal solutions merely a 'complex jigsaw of advantages and disadvantages'. To theorise about girls and boys as 'unitary' and with uncontested identities would make the complexity of educational subjectivities [poor, isolated, English as a second language for example] superfluous (Hayes, 2001).

Education is identified as crucial to addressing social and economic inequity, but the outcomes are dependent upon the participation of all sectors of society (Davis, 2010). While education settings are too frequently involved in the perpetuation of gender inequities and stereotypes, ". . . it can also be a crucial focus for changing them" (PAHO, c2001). This is relevant to the conjecture in the mid-1990s that early childhood settings had been relatively invisible in the gender debate (Alloway, 1994, MacNaughton, 2000), and yet the evidence indicates that the kindergarten, pre-school or childcare centre and the early years classroom provide educational experiences that are anything but equitable.(Baird, 1992). For children of all ages, educational settings are an important primary location for developing social relationships, and yet they are also a primary location for exclusion and inequity (Bauer, 2000). Unfortunately in Australia the leadership teams in many schools may profess to be "supportive – sort of" of the implementation of gender reform without any substantial notion of "what is and isn't happening in their schools" (Kenway, 1998). Addressing issues of gender equity – and gender inequity - may project some educators to a place outside their comfort zone: however gender equity cannot legitimately be regarded as an 'optional extra' (Kenway, 1993), a situation which continues to be evident in the mainstream education system (Davis, 2010; Ofsted, 2011; Southgate, 2010).

The political objective for developing gender equity arguments directs attention to the existing inequity, and challenges educators to provide targeted intervention programs to actively undermine mainstream assumptions (Dentith, 2008; Sadker, 1999; Tatar & Emmanuel, 2001). While such programs promote opportunities for some girls, the possibility of sustained change to education practices appears unlikely without concomitant change to the underlying assumptions of the broader, gendered society (Gherardi, 1994; Goulding & Cleeve, 1998). The terms 'gender equity' and 'social justice' may themselves mask the complexity of gender construction and maintenance (Ringrose, 2007), and simplify the apparent difficulty of creating sustainable education reform as ". . . reform needs to occur in so many different places at one and the same time" (Gilbert, 1994, 2). Additionally, implementing equity programs without acknowledging the intersection of race and socio-economic status are demonstrably doomed (AAUW, 2001).

Figure 3c: The other side of equity **(See Notes i)**

3.4.2 Educational bias and/or discrimination

Recognising the inequities in educational institutions only through a gender lens would obscure the reality for many girls and women ((Davis 1999) but in the context of this research the focus is on the systemic elements of traditional education provision which replicate gender bias. Davis et al (1999) suggest that the patterns of bias against girls were "inadvertent, not maliciously intended": that is they were "sins of omission not commission". Not all educational analysts were as kind. The American Association of University Women (AAUW, 1999) was extremely critical of the lack of progress evident in addressing the transmission of gender biased 'signals' and negative messages in mainstream education. In the contemporary era, gender discrimination is frequently subtle and pervasive, institutionalised and systemic, and often very difficult to identify and articulate (Women's Council, 1999).

Educational knowledge and curriculum and the language used in educational settings replicates the dominant or mainstream culture and educators are well positioned to provide a positive model for influencing and challenging sexism, both overt and covert (Education Department WA), within their classroom or more widely through other areas of the school structure and programs. If teachers do establish the ground rules and have telling input into class discourse then their responsibility to identify gender dualisms which endorse conventional perspectives of femininity and masculinity and to ensure the utilisation of inclusive, gender-sensitive methods and materials is enormous (Ministry of Education Victoria, 1990; Schwartz & Hansen, 1992). The first key to accepting such responsibilities is incumbent on recognising their existence (Davis, 2000).

In discussing the participation of girls in technology, Knupfer, Rust & Mahoney (1997) concede that while some advancement can be identified in combating gender bias, "[t]he real concern goes beyond the biases of any specific people, to the larger dimensions of the teachers and students, instructional designers, artists, advertisers and families that make up society as a whole". Rather than striving to improve opportunities and encourage the participation of girls (Roddick, 2008), some educators are complicit in attitudes and practices that effectively increase the enormity of barriers which confront girls (Knupfer et al., 1997; Tannen, 1996).

3.4.3 The curriculum and educational practices

> From a cursory examination of the content of curriculum materials one could easily form the opinion that women either do not exist or else they play no significant role in the life of the human race and have made few if any contributions to our history or our culture.
>
> Schwarz, Allard & Mathews (1990)

Whether overt or covert the curricula are set up and supported by the school and provide messages about gender role development through activities, modelling, reinforcement and other forms of communication. Traditional fairy stories and nursery rhymes perpetuate the stereotypes of inept and dependent females and the competent and active male hero. This mirrors gender stereotypes that exist throughout society and is part of what is referred to as the hidden curriculum (Marshall & Reinhartz, 1997; Witt, 2001)). Adjacent to the hidden curriculum is what David Sadker (2001) refers to as gender blindness: circumstances where the gender bias is so normative that it escapes scrutiny. Self-evaluation of the learning environment they provide has resulted in some teachers claiming that they inhabit a gender-free zone, but the 'norms' or normative assumptions which most early childhood and primary teachers have accumulated over their lifetime routinely escape scrutiny (Settee, 2001).

Comparative studies and auditing of class lessons reflected the inequitable treatment of girls by teachers through a range of pedagogical practices: boys received more attention – both positive and negative (Wellhousen & Yin, 1997) which reinforced independent behaviour while girls were rewarded for docility (Settee, 2001). Gender differentiation is frequently the basis for organisation, management and control of the classroom. Classroom interactions between students and teachers and the attribution of praise which favours boys develops a learning environment that validates and sustains all that is masculine (Golombok & Fivush, 1994; Lloyd & Duveen, 1992; Witt, 2001). Praise, when dispersed, tends to commend knowledge and skill displayed by boys, while girls are rewarded for appearance and conformity (Pipher, 1994), and all these elements are absorbed by both genders as part of an unspoken bias (Feldman, 2002; Harter, 1999).

Classroom teachers who permit codes of power to remain unquestioned and unchallenged are 'hidden carriers' of society's gender-appropriate roles: sometimes they personally epitomise and model the stereotype of 'the good woman' (Harter, 1999). When boys initiate super-hero and weapon play, they are displaying hegemonic masculinity and experiencing personal and

group power which imposes a consequential experience for girls of domination (Browne, 2004). Rather than using classroom interactions and teaching practices as opportunities for expanding children's understandings of gendered behaviour and social pressures (Marsh, 2000), many teachers reject the notion that gender difference exists in their classroom (Davis, 2000). Evans (1997) quotes a study which presents six social aspects of gender representation in school setting, many which would escape scrutiny as providing different contexts for girls and boys, but each contributes to an overall environment potentially antagonistic to girls [See Appendix 3A for a detailed list of the six representations].

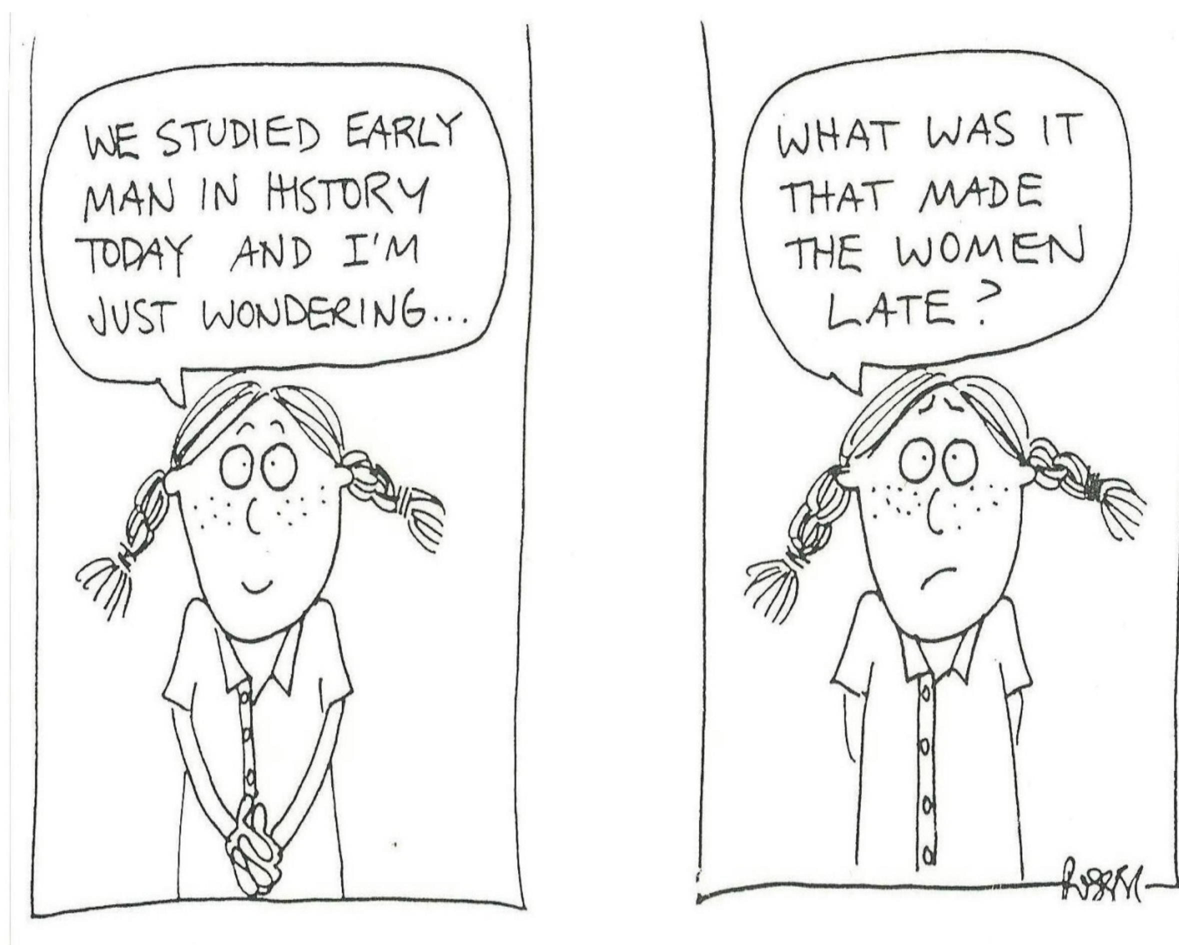


Figure 3d: The Hidden Curriculum **(See Notes i)**

Consideration of the formal curriculum promotes the formulation of 'gender inclusivity', shorthand for creating a teaching and learning environment which incorporates and values the skills, knowledge and experience of both girls and boys (Gender Equity Taskforce, 1997; Rennie, 2003). This does not require abandoning all apparently gendered topics, but rather that planning and implementation of learning experiences challenges the normative while acknowledging and validating the interest, ideas and learning style of both girls and boys

(Brinton, 2000; Marshall & Reinharz, 1997; Rennie, 2003). Planned educational interventions may result in positive outcomes but sustainable change to break patterns of gender inequity in programs and classrooms must acknowledge the centrality of the teacher's role (Shamai, 1994). [See Appendix 3B for an example of persistent gender bias in teaching resources]. This is particularly pertinent for teachers working with younger children, where research and professional development opportunities have been minimal when compared to secondary level studies (Alloway, 1994).

3.4.4 What about the boys?

> Feminism is not a dirty word, but it can be used in a derogatory way to silence work on gender issues. Such silence only ensures that the interests of boys and girls continue to be pitted against each other.
>
> Mills (2001, cited in Education Queensland, np)

Although an interesting study in itself, the history of how gender equity policy evolved is not within the scope of this research. What is relevant is a consideration of how effective or ineffective targeted programs have been in achieving the objectives at the core of education reform from the 1970s to the 1990s including girls' retention rates, their narrow subject choice and their levels of achievement (Moyle & Gill, 2005). While evaluating the outcomes of the intervention policies at both state and federal levels is confronting and causal connections difficult to confirm (McInnis, 1995) noticeable improvement in some markers (Anglicare, 2004; Dressing, 1992; Moyle & Gill, 2005) has provoked community muttering, and in its extreme, aggressive outrage (Teese, 1997). Differential educational performance for females and males exiting school, which are relatively marginal, have been invoked to demonstrate an unfulfilled need for focusing on boys (Browne, 2004; Warrington & Younger, 2000).

The identification of 'gender equity' as a conceptual framework to address the disadvantage of girls became a contested area. In algorithmic form:

gender = **boys** + girls (dominance intended)

Expanding the discussion to focus on the newly disadvantaged, based on a judicious interpretation of some select indicators, waters down and redirects the focus to a notion of

male disadvantage (Woolley,1998 cited in Ford 2008). Educators cautioned against creating 'competing victims' syndrome (NSW Government, 1994; Sadker, 1996; Spender, 2004). [See Chapter 1] but the direction of gender-based school reform had been diverted. The political impetus for 'new' gender-based school reform, distinct from discrete programs and strategies for girls, is evident in documents such as the executive summary of 'Schools Work Towards Gender Equity' (DEETYA, 1998). This program is comprehensive, but with the exception of one heading and a solitary dot-point question, the word *girls* is missing from the document (Ford, 2008). Most key areas highlighted – violence, harassment, bullying and participation – are expressed in gender-neutral terms however 'how masculinity [but not femininity] is defined and its impact on boys' achievement' (DEETYA, 1998) is specifically indicated.

In the public domain, a gender war in education had erupted, with boys 'the second sex' and victims of feminists' efforts to promote the advancement of girls [for example Christina Hoff Sommers*, War Against Boys*]. There was certainly no shortage of experts and pseudo-experts poised to join the affray through a submission to the August 2000 House of Representatives inquiry into the education of boys, or through statements in the media and while some of these were well researched, others conveyed inaccuracies, stereotypes, and vehement argument nearing hysteria [See Appendix 3C for excerpts from some of these documents]. Mills and Lingard (1997, 51) expand on this argument:

> In recent times there has been a hijacking of this feminist interest in boys' education, by a masculinist, often men's rights, concern with how schools damage the welfare of boys . . . This is one element of a broader backlash against feminism by a variety of organised men's groups . . . The "What about the boys?" discourse has the potential to subvert many of the hard won gains achieved by women for girls in schools.

Gender and gender relations may be key issues in providing an appropriate education environment, but it is not a winners versus losers contest in which equity is a carefully balanced trade-off between accommodating the needs of both girls and boys simultaneously (Deakin University, 2000). The resurgence in concern for boys' education, in the context of 'reverse discrimination' and 'a political agenda that marginalises men' (Barron, 1997) valorises a dominant masculine culture, to the disadvantage of girls and also boys who are not 'doing' complicit masculinity (AEU, 2000; Burman, 2005; Mills & Lingard, 1997; Scott, 2010).

Research with children in a primary school setting detailed how, if given the opportunity more than 40% of girls would prefer to be born a member of the opposite sex; yet this was the response from only 5% of boys (Sadker, 2000). Such a finding suggests that both genders have absorbed the prevailing climate in the classroom and beyond and have a functional understanding of 'adult-validated sex-stereotyped beliefs' (Spertus, 1991). Girls know who is winning the war!

3.4.5 Education resources

The incorporation of gender bias and stereotypes in children's basal reading books and popular literature is undeniable. While some of the traditional reading series that presented overt examples of bias have disappeared from the shelves (e.g. Happy Trio; Happy Venture; John and Betty; Gay Way Readers; Young Australian Readers) they have been superseded by reading material that lacks rigorous auditing and sustains existing role models (Sadker & Sadker, 1994; Witt, 2001). The gendered child, with binary gender roles and stereotypes based on constructs of the masculine and the feminine, are the grist of children's first schoolbooks, and for girls particularly, the situation only becomes more restrictive (Gilbert & Taylor, 1991Rose & Schaare, 1998).

As one of the formative aspects contributing to the gender constructs, literature contributes extensively to the proliferation of stereotypes, but countering existing gendered self-perceptions through the production and availability of counter-sexist texts and stories is problematic (Gilbert 1988). The availability of counter-sexist picture story books; story books; novels; teaching texts and materials continues to expand, and designated lists are available to guide teachers and teacher-librarians to provide appropriate literature. (See Appendix 3D for a comprehensive sample list]. Nevertheless the implementation of text analysis and a critical appraisal of the gendered content of literature in schools is an effective means of addressing inequity and sexism with students ((Walker & Foote, 1999) and a pre-requisite for the choice of new reading material and the systematic removal of books which present unacceptably narrow versions of what it means to be female or male (Webb, 1998).

Computer use in schools has expanded exponentially, and children are exposed to learning technologies at the earliest formal learning levels. "Although predictions over the last decade touted computers as 'the great equalizer' they have been found to actually maintain and exaggerate inequities in access to and knowledge of technology (McNair *et al*, 2001).

Australian data follows the international trend that indicates a decline in girls pursuing ICT at the school level, and a disinclination to follow pathways to a professional career in ICT (Courtney *et a*l, 2007; Margolis & Fisher, 2003). However, computer competency is a pre-requisite for many workplaces and career options and also further study, so provision of equitable educational experiences for girls and boys is fundamental (Knupfer, Rust & Mahoney, 1997; Woolley, 2002).

The defining difference in computer usage by girls and boys appears related less to individual capacity and more to attitudes – of the girls and boys, their parents, their teachers and advertisers – and the inherent gender bias in most software programs (Bhargava, Kirova-Petrova & McNair, 1999; Sanders, 2005). "The pattern of gender bias previously documented in textbooks and other curriculum materials in terms of language, content, and illustrations is now present in computer software as well" (Hodes, 2001). Computer software is designed for boys: it is game dominated, has a predominance of male characters, promotes competition and in many cases aggression and violence, and depicts female characters in traditional roles (McNair *et al* 2001).

Gender differences in computing at the pre-school level were less evident, but attitudes to computer usage became more divergent 'the longer children are in school' (Whitley, 1997 cited in Sanders, 2005). Sanders (2005) suggests that pedagogical issues related to gender and ICT may have become less 'fashionable' but it would seem that the relentless advance of technology in all areas of life – from recreational to professional – makes the answers even more critical. [See Appendix 3E for a list of what Sanders, 2005, believes that we 'need to know' about gender and technology]. Alongside science, technology has the potential to provide girls with employment possibilities in an era of skill shortage, but despite greater female involvement in these subject areas, there has not been a comparable increase in women entering the non-traditional areas such as engineering and ICT (Lee, 2001). Anderson (2008) asserts that divergence in the participation and engagement of girls and boys is identifiable as early as the primary school years, but deficits in ICT skills and knowledge demonstrated by girls is not part of the education agenda (e.g. in the same way as the crisis in boys' literacy).

3.5 The social environment

> What is missing from the equation is a recognition of the social framework: the location, upbringing, expectations and belief structures that people hold. For it is those which give shape to

> our ideas about sex and gender, and translate those ideas into action.
>
> Elaine Storkey (2001, 20)

The social framework to which Storkey (2001) refers, encompasses a number of elements in the social environment which contribute to an individual's perception of the world.

3.5.1 Peer group and family influences

Research abounds with examples of differential treatment by parents of children, according to their gender: even newborn babies are subjected to distinctly different interaction with parents and family members (Kretchmar, 2009; Lips, 2002; Torppa, 2001; Wharton, 2005). Parents reward behaviour that is gender-aligned but fathers particularly have concerns about their son's cross-gender play [i.e. pursuing activities and toys identified as more appropriate for girls] (Freeman, 2007).

As children participate in activities outside their home and family group, the effects of peer group pressure become more pertinent to gender-identity (Bussey & Bandura, 1999; Witt, 1997). Initially children internalise the gender-appropriate role messages from parents but as their social world expands, so do the influences and the input to their conceptual understanding of what it means to be female or male (Witt, 1997). Infants are social beings and absorb social markers and behaviour from interacting mainly with adults (Oden, 1987), a system of personal organisation that they refine through membership more closely and consistently with peers (Oden, 1987). What is especially relevant to this study is how observing children's play experiences gives insight into attitudes towards same-sex and mixed-sex activities: by school age both groups had a sound grasp of femaleness and maleness and implemented it in play e.g. same-sex boys' play was more boisterous and displayed more consistent stereotypes than same-sex girls' play at the same age (Fabes, Martin& Hanish, 2003).

Gender segregation in the primary school is not absolute but its influence can be profound, with children acknowledging and rewarding appropriate gender behaviour, and sanctioning those who stray into other-gender conduct (Bussey & Bandura, 1997; Frost *et al,* 2008). Parents are unintentionally complicit in promoting sex-typed behaviour through gender-differentiated clothing and toys and praise or prizes for gender-appropriate play (Frost, Wortham & Reiffel, 2008; Witt, 1997). However, Zosuls et al. (2011, 3), proposed that what

is left unresolved is ". . . the question of whether young children's attitudes towards the other gender are *less positive* than in-group attitudes (in-group favouritism) or whether they involve *negative* attitudes (out-group derogation)". The answer to that question may direct how to start addressing gender-exclusion.

In the area of career preference, the implications of parental input are quite profound (McMahon, Carroll & Gillies, 2001; McNerney & Coleman, 1998), and the influence of mothers who stressed education and provided a positive role model could be identified (Freeman, 1990). Incredibly, at a time when girls appear to be gaining a foothold in the labour market, the impending negativity of social pressure through print and electronic media is jeopardising these gains (Ashley, 1999). Witness the angry censure against radio personality Jackie O, including by the NSW Families and Community Service Minister and the Minister for Women Prue Goward, when her 'mothering' skills were not aligned to the nurturing mother stereotype (Sunday Telegraph, 2011).

Peer group attitudes and gender stereotyping impact adversely on many girls who may contemplate pursuing a technology pathway (Sanders, 2005). Of particular relevance to educators who structure ICT learning experiences is the constraint on girls' achievements according to the social context: girls are more likely to be stressed when being observed working by others, most particularly boys (Sanders, 2005). Additionally, by secondary school level, gifted girls are more likely to be discouraged by peer pressure from participating in advanced programs or behaving competitively (Nelson & Smith, 2001). Despite the advances in girls' education, their changing roles in society and the implementation of inclusive policies, sexist ideas both at home and at school, continue to constrain the choices girls make about careers (Clark & Horan, 2000). Where parents contribute to enriching experiences for girls, through exposing them to non-traditional occupations and encouraging their aspirations, a discernible difference could be identified in self-efficacy and aspiration (*ibid)*. This is part of an evolving body of knowledge which links a supportive parenting style from the early years and throughout childhood to vocational choices and attitude to the world of work: parents are the earliest source of career-related values, knowledge and beliefs (Herbert, 1986; Kerka, 2002; McMahon, Carroll & Gillies, 2001).

While stable family structure and maternal employment both appear to have a positive correlation to more egalitarian attitudes and career aspirations for girls, that does not ensure their translation into behaviour (Wright & Young, 1998). Other family determinants – like

geographic location and socio-economic status - may intersect with parental attitudes, indicating the necessity for career counsellors to work collaboratively with parents at all educational levels (Blackhurst & Auger, 2008; Herbert, 1986). Steele (1996) commented on parental influence:

> While career options available to young women are expanding, and becoming more similar to the career opportunities of their fathers, our findings indicate that these young women are looking more to maternal attitudes, than paternal attitudes, for vocational guidance.
>
> Steele (1996, 5)

The implications for career aspirations seem self-evident.

3.5.2 Popular culture

An analysis of family films in the mid 2000s, commissioned by the Geena Davis Institute on Gender in Media, compiled data illustrating that fewer than a third of characters in these movies are female (with an even lower percentage in 'crowd' scenes), and if they were indeed female, were frequently scantily-clad and almost exclusively inactive (Baird, 2010). Davis (quoted in Baird, 2000) highlighted research that confirmed that an increase in television viewing by girls resulted in a decrease in her recognition of life options, whereas for boys it provoked more sexist views. The contention is that as ". . . children are active and structured processors of social information provided on television" they consistently accommodate the perceptions they view into understanding of their own lives (Beal, 1994; Durkin & Nugent, 1998).

The world of the animated movie continues the inequity in the number of characters of each gender included – both as central characters and 'extras' - and the stereotypical characteristics they portray (Oliver & Green, 2001). Research identifies these movies as potentially contributing to the development or maintenance of gender stereotypes by viewers, with the impact most pronounced for younger children (Oliver & Green, 2001). The gendered nature of both family and animated movies has been identified through numerous audits: what is less well researched is the impact on, and response from, young children (Thompson & Zerbinos, 1997).

In the ‘teen scene’, movies directed towards girls have a consistent demographic of white and usually middle-class girls, to whom school and career is unimportant, and dependence on men is virtually mandatory (Hylmo, 2006) and the constancy of such limited messages is concerning (Haferkamp, 1999). The viewing habits of children [in the USA] indicate that 0-6 year olds consume at least 2 hours screen media per day and this jumps to more than 6 hours for 8-18 year olds (Smith & Granados, 2010). Most studies confirm that such an intensive viewing regime contributes to gendered perceptions of different occupations (Smith & Granados. 2010):

> Everything we read . . . constructs us, makes us who we are, by presenting our image of ourselves as girls and women, as boys and men.
>
> Mem Fox (1993, cited in Singh, 1998, np)

Stories and rhymes are cultural artefacts [Appendix 3F shares a traditional story, or should that be stories?] that convey perspectives of gender and gender relations as well as other dominant social messages (Collins, Ingoldsby & Dellman, 1984). If, as Mem Fox suggests [above], our interpretation of society and our developing self-image is reinforced by the ‘insidious’ gendered images in literature, then the proliferation and perpetuation of stereotypes is limiting for both girls and boys (Singh, 1998). There has been a small but noticeable increase in female characters included in picture story books in the past 20 years, but active and ‘exciting’ male characters – compared to girls who are more passive and ‘domesticated’ - still dominate the pages of children’s literature (Crab & Bielawski1994; Poarch & Monk-Turner, 2001).

Any efforts by teachers to move beyond gender stereotypes through a range of classroom activities may be conflicted by the persistence of female and male fictional characters that represent traditional roles, behaviours and jobs (NCTE, 1995). Research with young children, conducted and reported by Karniol and Gal-Disegni (2009), detailed how children exposed to gender-neutral basal readers demonstrated a more diverse understanding of gender stereotypes especially as they applied to women. Incorporating books with counter-sexist stories, characters and images may be a successful strategy but initially adults need to understand and acknowledge their own position (NCTE, 1995; Singh, 1998).

3.5.3 Gender and advertising

The gender stereotypes are also well-represented in advertising, despite an increase in the diversity of representations of females and males since the 1980s (Children Now, 1997;

Coltrane, 2000). Overwhelmingly, the use of television advertising is favoured for sharing product information with children, and just as overwhelmingly, the messages are gendered and stereotypical (Coltrane, 2000; Davis, 2003). The National Institute on Media and the Family (1998), a lobby group in the USA quote research which indicates that children aged 2-11 watch over 20,000 advertisements a year, and the bias in content, main characters, activity and behaviour follows the stereotypical version of girls and boys.

> Research consistently documents how television commercials present conventional gender stereotypes, with women shown as young, thin, sexy, smiling, acquiescent, provocative, and available. Men characters, in contrast, tend to be shown as knowledgeable, independent, powerful, successful and tough.
>
> Coltrane (2000, np).

[Appendix 3G provides informal 'wordles' of comparative characteristics and behaviour. Can you pick the gender for each?]

Children from pre-school to post-school are actively developing self-image and understandings of gender inclusion and gender relations, so the impact of perceived bias in advertising on social constructions of identity is potentially quite comprehensive (Davis, 2003). Additionally, the intersection of gender and race is evident in television commercials and provides ready-made stereotypes for the viewers' consumption and application to their cognitive knowledge of gender difference (Coltrane, 2000; Furnham & Mak, 1999). While there are discernible changes to the stereotypes in advertising, the evidence suggests that passive characters, in domestic settings are predominantly female, and the active characters in work and outdoor locations are predominantly male (Davis, 2003; Napoli, 2003). In this context the data suggesting younger girls, in particular, may model their behaviour on the characters represented in advertising is relevant (Children Now, 1997).

3.6 Links to the world of work

> Despite numerous changes in policy and legislation, issues of gender equity in the Australian education system and labour market remain a concern of the Australian public.
>
> Longitudinal Surveys of Australian Youth, 2003

3.6.1 Career aspirations

The evolution of contemporary career development theory had its genesis in the first decades of the twentieth century, but the 1950s witnessed an intensified growth that has primarily focused on stages of vocational aspirations of 'generic' adolescents and adults (Care et al., 2007). Aspects of maturation and parental influence were recognised and in a few instances gender and culture added to the mix to create a link between identity and work identity (Taylor et al., 2003). Super (1957 cited in Harris-Bowlsby, 2003) promoted the centrality of self-concept and suggested that internal variables [interests, talents and personality traits for example] and external variables [including the labour market, the economy and hiring practices] are all implicated in career choice. What remained implicit was the focus on 'white, middle-class, young men' with an absence of detailed career development theory based on variables such as gender, age, racial/ethnic background and [dis]ability (Harris-Bowlsby, 2003).

The prevalence of different occupational aspirations according to gender is linked to the persistence of stereotypical educational expectations from an extremely early age (Marini & Brinton, 1984; Schultheiss, 2005). The disparity in attitudes to paid employment is evident in the messages internalised by boys of the centrality of work for males, when compared to the confused and conflicting perceptions young girls glean from the social environment (Hughes-Bond, 1998; Moya, 2000). While girls may articulate the probability that they will embrace some paid work, they indicate that this would be in conjunction with home duties and childcare (Hughes-Bond,_1998; Moya, 2000). Whereas it generally remains the responsibility of women to juggle the demands of paid and unpaid employment, the reality is that long-term employment will be as essential to the working life of women as it is to men (Brown & Fitzpatrack, 1981; Taylor, 2005). It is timely to emphasise that any generalisations about gender comparisons, or indeed other social phenomenon, should be considered in the context that there will be similarities and differences between the binary groups of female and male as well as within both groups (Wigfield, Battle, Keller & Eccles, 2001).

The development of a gendered understanding of potential careers was explored by Susan Stroeher (1994) through research in her kindergarten classroom. She conceded that the

limited size of her project prevented universalising the outcomes, but there was compelling evidence that even young girls identified some work roles as gender-specific, and they overwhelmingly preferred 'traditional, nurturing' occupations (Stroeher, 1994). This issue was also a focus of research by Lloyd and Duveen (1988) who identified children at school entrance age as invoking gender markers of objects and activities and embracing occupational stereotypes which aligned with adult perceptions, even to the extent that by 6-8 years of age they are discarding those careers seen as belonging to the opposite sex (McMahon, 2002; Moya, 2000). This would correspond with Gottfredson's contention that early fantasy aspirations are being abandoned for more 'realistic' career interests by the age of 9 (cited in Wahl, 2005; Care, Deans & Brown,, 2007).

Care et al. (2007) contend that the model proposed by Gottfredson (see also Helwig, 1998; Taylor et al., 2003; Watson & McMahon, 2003) provides an appropriate framework "to examine the developing interests and understandings of young children about the working world in which they grow" (Care, et al, 2007). Key elements include the first stage at 3-5 years where children begin expressing realistic occupational aspirations with reasonably positive attitudes towards most occupations (Care, Deans & Brown, 2007). A second stage, from 6-8 years, is highlighted by an orientation to gender roles (Helwig, 1998) but this gives way to 'circumscription and compromise' at the third stage from 9-13, in which children gravitate to occupations based on the work role's perceived social status and also their own individual intellectual capacity (Helwig, 1998). While the Gottfredson model has comprehensive support and has been used as a framework for many research projects, it does share the stage with a range of career development theories. Within these theories there are differences in definition and concept, but overwhelmingly they support a notion of career aspirations where a gender dimension is salient (Care, Deans & Brown, 2007; Helwig, 1998; Taylor *et al*, 2003; Watson & McMahon, 2003).

The critical issue in considering underpinning theories of career aspirations is not whether gender constraints exist – the evidence appears fairly conclusive (Ofsted, 2011). In fact, though elements of contention exist, career development theory provides relatively consistent behavioural descriptions of childhood career development (Care, Deans, & Brown, 2007; Watson & McMahon, 2003). What is substantially unexplored and unexplained is the recursive nature of influences from which this behaviour develops (Feller, 2003; Harris-Bowlsby, 2003), and what interventions may contribute to changing children's occupational aspirations: ". . . not only the *what* but the *how* . . ." (Watson & McMahon, 2003, 129).

Pre-schools and primary schools are well positioned to provide meaningful career education (McMahon, 2007; Harkins, 2001) as part of policy to expand children's cognitive understanding of occupations and promote self-concept (Taylor *et* al, 2003; Schultheiss, 2005). Even at elementary school level, girls are self-effacing regarding their lesser ability in maths, ITC and the sciences when compared to boys of the same age (Levy, Sadovsky & Troseth, 2000). The construct of gender and internalisation of perceived ability – or lack of ability – is important in relation to curriculum differentiation, school subject choice, expectations of parents, school personnel and self (HRDSC, 2002; Levy, Sadovsky & Troseth, 2000) and these constructs are evident from an early age (Equal Opportunities Commission, 2005; Wigfield, Battle, Keller & Eccles, 2001). "Early career interventions provide the ideal venue for the promotion of social action initiatives aimed at improving academic achievement and expanding future career options for all students" (Schultheiss, 2005). Where primary schools did take the opportunity to include career related education, particularly through incursions and excursions by people in varied work roles, children were motivated to think more about 'future jobs' and to be influenced by role models (Ofsted, 2011).

Tracking the changes in children's knowledge and understanding of careers and career-related decisions highlights that career development is a lifelong process, and one which begins in early childhood (Auger, Blackhurst & Wahl, 2005; Wahl, 2005). Pre-schoolers demonstrate a significant knowledge of gender-stereotyping of occupations and are reluctant to indicate an interest in cross-gender-type work roles (Levy, Sadovsky & Troseth, 2000). In early childhood, girls and boys identify with adult role models, frequently the same-sex parent or carer, and gain a broad understanding that work is 'something that grown-ups do', and their gender expectations of careers are relatively inflexible (McMahon, 2002; Wigfield, Battle, Keller & Eccles, 2001). As they reach the senior primary [elementary] years, one aspect of divergence is noticeable: girls demonstrate less rigidity about careers designated as male-only (Auger, Blackhurst & Whal, 2005; Wigfield, Battle, Keller & Eccles, 2001), while greater sex-typed choices are starkly evident for boys of the same age (Care, Deans & Brown, 2007; Domenico & Jones, 2006).

The American School Counselor Association [ASCA] acknowledges that part of the counsellor's role in school programs from pre-kindergarten to Year 12 should be to promote competencies and knowledge in issues related to career development (ASCA cited in Wahl, 2005). While there are numerous theories related to career development, most describe a

developmental process, which responds to external influences and cognitive growth, and provides refinement of career aspirations (Blackhurst & Auger, 2008; Wahl, 2005). If restrictive gender stereotyping does impact so identifiably on educational goals and career aspirations, then the design, structure and timing of intervention programs becomes critical (Signorella, 1985), particularly when expectations are constrained by lower economic status (Domenico & Jones, 2006) or disability, or parental expectations, or curriculum provision.

> Increasing the likelihood that students will exercise some real control over their eventual choice of occupation, and not just severely restricted by the constraints of gender and class, is much more than just a question of information about a plethora of careers.
>
> Skelton (1992)

To persuade females to participate in non-traditional occupations, education about careers should start ‘as early as possible, well before puberty’ (Avebury Research, 1986).

3.6.2 The world of work

Much of the emphasis in promoting women’s participation in the paid workforce has been directed towards increased participation in the non-traditional areas of the labour market, and channelling girls along alternative pathways is appealing (Doimenico & Jones, 2006; Kenway & Wills, 1993). While there is evidence of change in non-traditional participation rates (Bergman, 2005) they appear relatively haphazard, with strong growth in medicine and law for example contrasted with negligible increases in areas such as engineering and construction (Davey & Lalande, 2004). Researchers maintain that the development of personal values is linked to the prevailing social context, with suggestions that consequently woman are attracted by occupations that promote relational values [concern for others] more readily than where career choice is founded on values of achievement and prosperity (Elizur, D. 1994).

In the world of the corporate and consumerism, social status in the labour market and the rewards which accompany such status, are very determinedly gendered. Helvig (1998) argues for the “inevitability of gender-role stereotyping” of occupations by young children through immersion in a gendered cultural environment, and suggests that the role of significant adults – parents, teachers, counsellors - is to expand children’s options. The contemporary world of work is increasingly flexible, and the concepts of work, career and education must be considered in the context of the social and economic milieu of transitory and precarious

employment (ECEF, 2001; Sampson, 1983), rather than ‘a job for life’. While occupational segregation may result from girls and boys adhering to their perceptions of gendered work roles, there are no intrinsic elements of any job which make it inappropriate for either/or/both genders (Bergman, 2005).

Changes in the youth labour market have been accompanied by extended school participation, especially for girls, but gendered outcomes persist although ameliorated by socio-economic status. Gender gap disadvantage which is minimal for girls at the highest socio-economic level widens as the student’s status declines (Teese, Davies, Charlton & Polesi, 1995, cited in ECEF 2001). Research suggests that girls’ career ambitions also decrease as they progress through the school system (McLeod & Yates, 1998, cited in ECEF, 2001). What is often not effectively understood is that both the ‘bread winner’ and the ‘housewife’ labels are historical, social constructs which do not accurately reflect the enormous change to the workplace in the past three decades (Clark & Page, 2002).

3.6.3 Career counselling

> The importance of the elementary school years as a foundation for children’s later career decisions underscores the necessity of planned attention to the elementary student’s career development. Although the responsibility for career education planning rests primarily with classroom teachers, the elementary school counsellor can make a major contribution as a coordinator and consultant in developing a continuous, sequential and integrated program.
>
> Herring (1998)

The normative understanding of career counselling was destabilised by comments attributed to Kate Castine, Head of Principals Australia career education project, in The Australian (2009). Her proposal, that ‘career development concepts’ be included in the new national childcare curriculum, stimulated vigorous debate [See Appendix 3H for a sample of responses]. Early childhood career development appears to be relatively neglected in research and curriculum documents in preference to more intensive counselling at upper secondary levels. Deferring talking about ‘work’ ensures that many valuable opportunities to challenge gender stereotypes and lay the foundations for career development skills and knowledge with children at the early

childhood stage are ignored (Alloway, 1994; McMahon, 2007; WEEA, 2002). Taking a pro-active stance may mean confronting co-workers, challenging the stereotypical views held by parents, promoting democratic classrooms, and empowering students to confidently express their ideas about paid employment (DeLair & Erwin, 2000; Wood, 2005). Quite a challenge!

In contemporary society, adult self-perception, status, economic security and well-being can be linked to 'what we do' in paid employment, but career development has its foundations in the early years and continues across the lifespan (Herring, 1998, McIntosh, 2000; Whiston 2002). Most women participate in the labour market for extended periods during their adult life which makes it imperative for equitable education and vocational opportunities to consider the limitations of gendered career planning and work roles (Foldsey & Foldsey, 1993). The perpetuation of gender stereotypes in subject choice, career options and aspirations are inappropriate, and dispelling the myths and stereotypes should be an objective of educators from pre-school to transition to post secondary education *(ibid*; Herring, 1998; BBC News, 2005).

Magnuson and Starr (2000) stated: "If one accepts the concept that children make decisions about themselves and the world at a very young age, it follows that the development of skills required for effective life career planning must begin early". The prospect of career education in the early years is not a mandate for occupational choices in infancy, rather a recognition that it is developmentally appropriate to structure learning about the world of work and work skills alongside other life skills (Hough, 2009; McIntosh, 2000; McMahon, 2007; Wood, 2005). Informed, empowered choice of career options is not possible unless each individual has the opportunity to gain diverse skills unfettered by gender bias, has the self-esteem to aspire to make sound personal choices and has insight into the restrictive limitations of gender stereotypes (McIntosh, 2000; WEEA, 2002).

Throughout their entire school experience, every child should be exposed to a developmental process, which supports a systematic, age-appropriate sequence of guidance and counselling (Herring, 1998; Magnuson & Starr, 2000; National Women's Law Service, 2002). The pre-vocational course for school counsellors makes this possibility extremely problematic (BBC News, 2005; The Telegraph, 2008) and results in careers education programs which deny girls the opportunity to make informed choices (Cullen, 2011).

3.7 Pre-vocational teacher education

> Early childhood professionals should model social justice, be willing to take a stand on issues of importance in their schools and community and make their behaviours consistent with their beliefs
>
> (De Lair & Erwin 2000, 160)

Educators, particularly at the primary level, are predominantly women, but they enter an education system prefaced on the gendered structural relations evident in the community (Hubbard & Datnow, 2000). [The implications for pre-vocational education are illustrated in the example in Appendix 3I]. In creating a climate for reform, women teachers may find the political impact of gendered relations a relatively impregnable barrier, particularly if the change they are advocating is labelled as a 'woman's program' (Hubbard & Datnow, 2000). The success of gender equity programs during the 1980s and 1990s, which aimed to address fundamental issues in gender discrimination in schools, is difficult to sustain without a clear analysis and understanding of the gendered nature of curriculum, administration and teaching practices and school culture itself (The Gen, 1993). In the chilly climate for gender reform based on assumptions that "the girls are doing brilliantly" (The Gen, 1993) issues of gender and other aspects of diversity and difference should be evident in pre-vocational teacher education (Robinson & Diaz, 2006).

Sexism in schools ". . . is still elusive, and many teachers still miss it. Teacher education and staff development programs do little to prepare teachers to 'see' the subtle, unintentional, but damaging gender bias that characterizes [sic] classrooms" (Sadker, 2001). This compounds a cultural resistance to sexism exhibited by some pre-vocational educators, who tacitly undermine the relevance of positive gender strategies in their programs (Campbell & Saunders, 1997) or identify girls and boys as responsible for bias in classroom interactions (Lundeberg, 1997). [See Appendix 3H for an example of social/cultural resistance].

Pre-vocational teachers, and those already in classrooms, require support to explore their own gendered assumptions and beliefs and understand the pervasive impact this has on the learning environment they provide for both girls and boys and how it is reflected by the social environment outside of the school-ground (DeLair & Erwin, 2000; Sanders, 2002). It is not

simply 'a woman's problem' (Coffey & Acker, 1991) nor can prejudice, bias, stereotypes or inequity be subsumed within gender neutrality: this merely perpetuates the status quo and leaves systemic difference immutable (Kaufman, Westland & Engvall, 1997). Too frequently such an approach relegates issues of gender to address only the immediate and the superficial (Hollingsworth, 1995; Maimgren & Weiner, 2000).

Questions about initial teacher education and the extent of their exposure to gender equity issues can be deflected as 'anti-male' or 'too political' or even feminist (Coffey & Acker, 1991; DeLair & Erwin, 2000; Malmgren & Weiner, 2000). In their discussion of teacher education in the USA, Malmgen & Weiner (2000) cite Hollingsworth's five hypotheses about teacher education:

- it is women's work and therefore its gendered characteristics appear 'normal'
- there is no more space available in the crowded curriculum for gender
- gender is being taught already, as part of course on diversity and multiculturalism
- 'there is no need' - current teacher research approaches are adequate
- it is a taboo subject, rather too emotional, controversial or sensitive to be dealt with in the 'neutral' and 'objective' classroom.

The challenge would be to research and evaluate how applicable they may be to contemporary pre-service education and learning materials (Professional Services Division, 1999; Zittleman & Sadker, 2002) and also professional development opportunities for practising teachers, as disputing dominant discourses about girls and gender are not identified as high priority (Coffey & Acker, 1991). Without the relevant research data, the details are at best provisional (Titus, 2000).

Education programs related to the preparation of teachers should be cognisecent of the need for specific policy to address issues of gender that are specific, comprehensive and informed by current research (AEU, 2001; Gilbert, 2000; Spence, 2000). The feminisation of the profession has ensured that teaching's 'less than a profession' status has been sustained (Kaufman, Westland & Engvall, 1997; Limerick, 2001; Malmgren & Weiner, 2000; Sullivan, 2001) and yet gender equity as it applies to girls and women remains invisible on the agenda

of the teacher education profession (Sanders, 2002). Individual teachers responsible for delivery of pre-service courses demonstrate personal commitment to gender equity but at departmental level the legitimacy of such initiatives may be discounted, or even be greeted by tacit resistance (Malmgren & Weiner 2000; Sanders, 2003). Pre-service and professional development programs have the capacity to exchange not only knowledge on the issues of equity – gender, culture, language, socio-economic status, [dis]ability and ethnicity - but how to lobby at the local and institutional level to change unfair, gender-based policy and practices (AEU, 2001; DeLair & Erwin, 2000). The potential effectiveness and universality on any equity programs, which would acknowledge the impact of stereotypes on education success, career aspirations and personal self-esteem, requires further research and decidedly greater action. Possibility? "Being free of gender or difference and denying the role of power is effortless for those with the power" (Kaufman, Westland & Engvall, 1997, 120).

Figure 3e: Equity at last? (See Notes i)

Chapter 4: Data collection and analysis

4.1 Introduction

> *We can't offer any girls an apprenticeship. It would upset the staffing balance.*
>
> Owner of a relatively large all-male electrical business in far North Queensland

> *Women don't become Partners because they just don't have the same commitment to their job.*
>
> Senior Partner in a Melbourne legal firm

> *. . . do we see government scholarships offered for women to become pilots, engineers or astronauts?*
>
> Professor Sally Walker responding to legislation introduced by Dr Brendan Nelson (Minister for Education in the Howard Liberal Parliament) to increase scholarships and incentives to address the dearth of men in education (cited in Moyle & Gill, 2005).

Undertaking this research has been an absorbing challenge: confronted with the 'normalness' of women's participation on the periphery of the paid labour market and their location outside the decision-making educational ramparts provoked much reflective thought *before* starting. Woman as the creator of knowledge does not have an extended historical recognition, and even in contemporary thought, women are represented as interpreting a female version of reality while men tell the all-encompassing human truth. Many of the themes and ideas in this study had their origins in lived experience and at times the perplexing problem was to relate what I could show, rather than what I know. Ever mindful of my professional responsibility and my commitment to promoting opportunity for girls and women, the research has focused

on gaining the evidence in a manner acceptable to academia while not compromising the centrality of the female experience or stifling the female voice (Minich, cited in Reinharz, 1992). What was eminently apparent was that the discourses on gender identity and gendered career aspirations were inevitably inter-twined. Advising girls and woman in the senior secondary and post-secondary period of their education that they could 'choose' from any career option was unsustainable and without legitimacy.

In an unpublished Arts Honours thesis in 1995, I had researched the career opportunities for women in education, identifying the factors which constrained their advancement and the systemic impediments to their equitable participation in a seemingly female-dominated work environment (Ford, 1995). I suggested that . . .

> [E]ntrenched attitudes and practices which perpetuate functional differentiation by gender are indefensible, but are unlikely to be substantially changed by strategies aimed at 'improving' individual women.
>
> Ford (1995, 48)

Some of my initial reading of the literature related to career aspirations of girls – or more suggestively, the lack of career aspirations of girls – echoed a similar message, that implied that the problem could be resolved by 'improving' the girls. Suggestions of empowering girls, increasing their self-confidence, then adding on a few IT skills and 'stirring', through intervention at the Year 9 or Year 10 level trivialised and under-represented the barriers (Ford, 1995). What I sought was an approach that would combine elements of quantitative and qualitative research: the former to provide convincing argument, the latter to surround the statistics with context. "To convince the general public and inform social action, we need both the big picture and the textured nuances, both numbers and specific lives" (Sprague, 2005).

4.2 Collecting the data

The children who nominated for the project were very willing participants and were interested to know more about 'what I was doing'. Altogether, 58 children were involved in the project with almost equal numbers from each of the three grade levels. One point of note is that despite almost equal numbers of girls and boys on class lists, boys, as a percentage of participants, decreased at each level – 10/20 at Grade 1 level; 7/18 at Grade 3/4 level and 6/20 at the Year 7 level. The data were collected over a number of days to ensure that children

had opportunity and time for interaction with me, and that my presence did not interrupt usual class routines.

4.3 Presenting and analysing the data

4.3.1 The survey

Individual children's responses were recorded on tick sheets, and the results collated on a spreadsheet. This spreadsheet of raw data is included as Appendix 4a but I have inserted the graphs in the text with description and analysis to make this section user-friendly.

In assessing the twenty career options children were asked to consider the gender-appropriateness of each role by nominating careers as appropriate for:

- both women and men (B)
- men (M)
- women (W)
- don't know (DK)

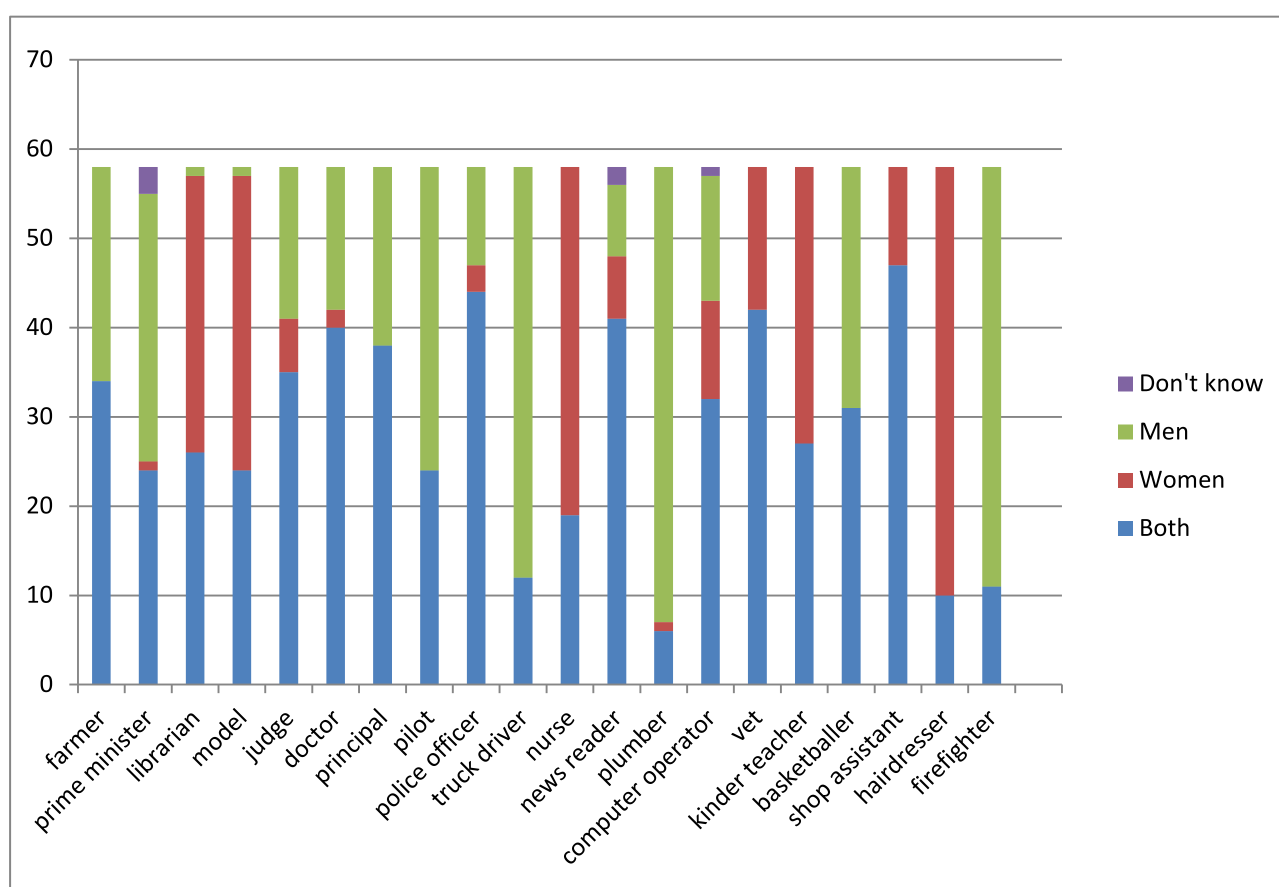


Figure 4a: Aggregate of options nominated by all children [n=58] in the project

Any assumption that children were not influenced by gender differences would probably be demonstrated if the majority of career options were identified as non-gendered or gender-neutral: that is most children would label every career (or the majority of careers) as suitable for 'both women and men'.

Figure 4a provides a pictorial representation of the raw data from the spreadsheet, and is an aggregate of girls and boys at all thee year levels (n=58). The blue shaded area in each column represents the number of children who identified a career option as gender-neutral: from a low of 6 for plumbing to a high of 47 for shop assistant. The extent to which children have viewed many of these options through a gender filter is readily evident. Where the gender-neutral option has not been chosen, which accounts for more than 45% of options, alternative choices have generally indicated that the role is seen as for women or for men. The roles seen as most gender specific for women include hairdresser, nurse, model, librarian and kindergarten teacher, while men are nominated as plumbers, firefighters, pilots, prime ministers, principals and basketballers.

The data from this small-scale research project specifically relates to a limited cohort of students from one setting but the findings demonstrate some critical emerging themes. Consequently while the results are not universally applicable, that is, their 'generalisability' is limited (Bogdan & Biklen, 2007; Harrison, 2001), they do provide contextual indicators and the potential for the project to be replicated. McMahon & Watson (2005) identify the sparseness of recent research on young children's career development and suggest that there has been ". . . an overemphasis on occupational aspirations and an under-emphasis on other critical aspects of children's career development". While my research does acknowledge individual career aspirations, it is rather a critical view that links gender with careers to which children do *not* aspire. Identifying the negative appraisal of particular careers by both girls and boys may provide some clues to the occupational knowledge children need to make considered and relevant choices.

From the aggregate totals on the spreadsheet [Appendix 4a] I have organised the information to provide for comparative analysis of subsets, to identify similarities and differences, particularly in the context of previous research.

This argument may be progressed by referring to the data for subsets of all girls [n=35] and all boys [n=23] in the project presented in Figures 4b and 4c. Acknowledging the discrepancy in sample size for these two subsets they still indicate a reasonably similar pattern of gender-

neutral and gendered occupational choices. In this research, at least 50% of boys and girls adjudge a range of occupations as other-gender. For girls the other-gender group includes prime minister, truck driver, firefighter and plumber; for boys the other-gender group includes nurse, kindergarten teacher, librarian, model and hairdresser. However, every occupational category is identified by at least some of the children in the study as being gender-specific.

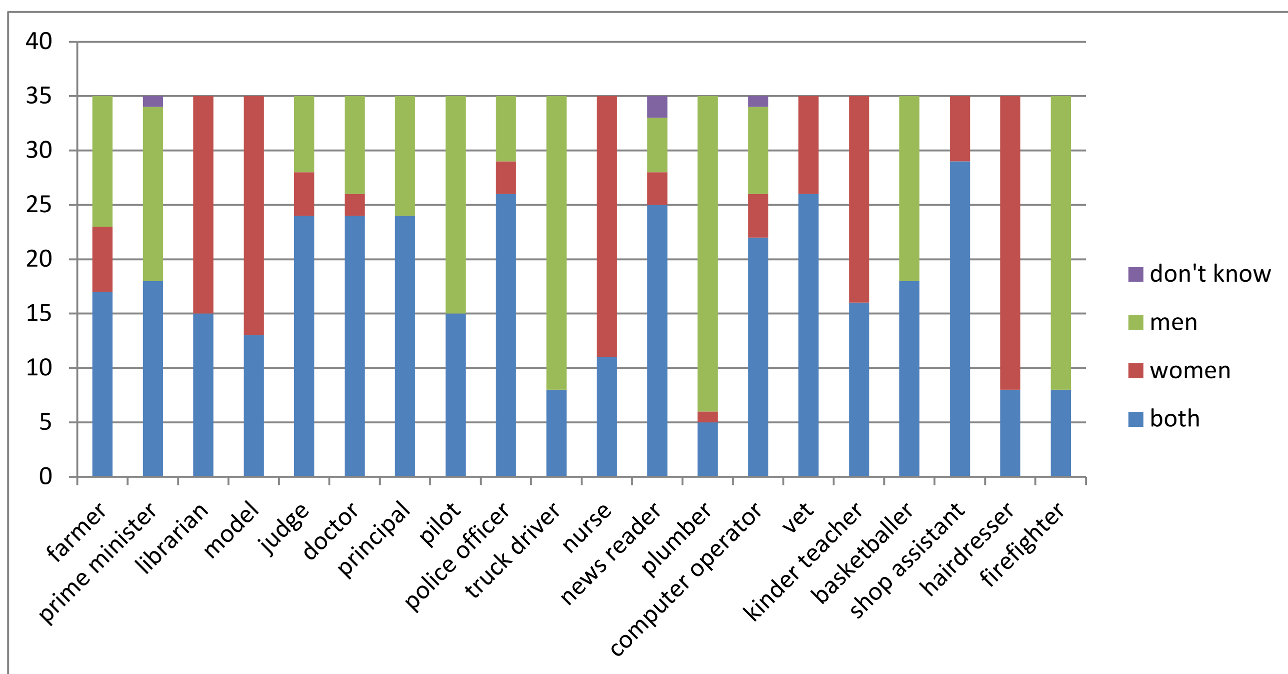


Figure 4b: Aggregate of options nominated by girls [n=35], all Year levels

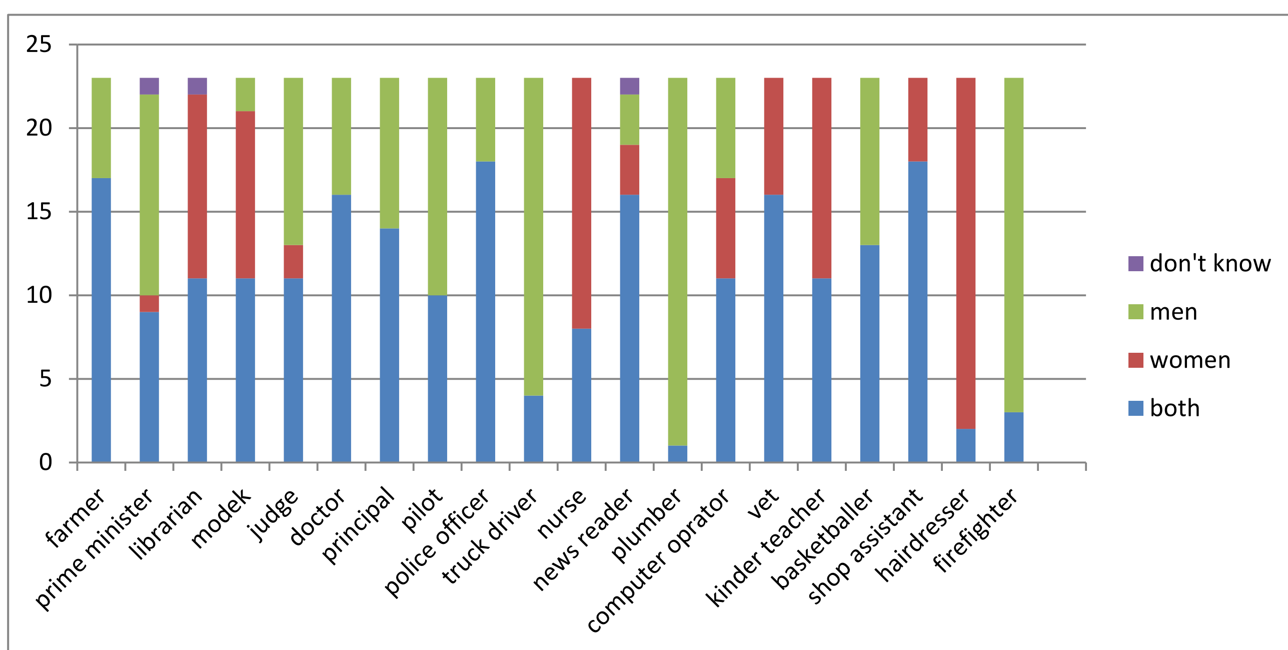


Figure 4c: Aggregate of options nominated by boys [n=23], all Year levels

Figures 4d, 4e and 4f compare the choices of individual girls and boys at each of the grade levels. Every child, except Girl M 7, bases at least some of her/his decisions on a gendered perspective of career options. Girl M7 named every category as suitable for both genders: after she had responded to the first few options, she laughed and declared, “You know I’m going to say that for every job, because men and women can do any job!”

At the Year 1 level (Figure 4d) there is a discernible difference in the number of occupations afforded gender neutrality by girls and boys: the average number for girls is 6.9, for boys 9.8.

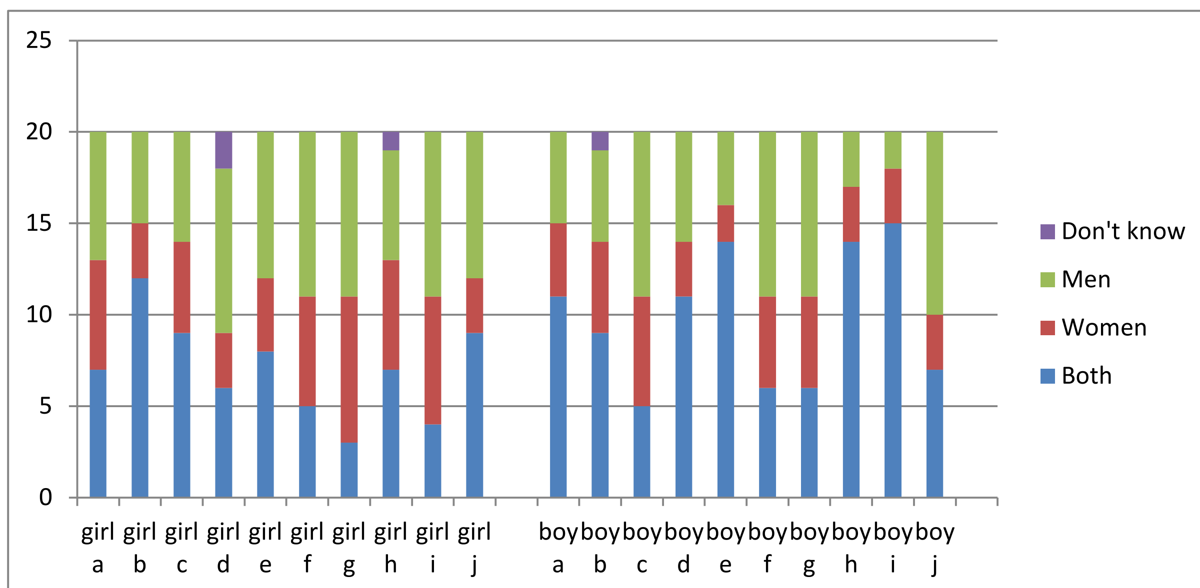


Figure 4d: Comparison between girls and boys, Year 1 level [n=10+10]

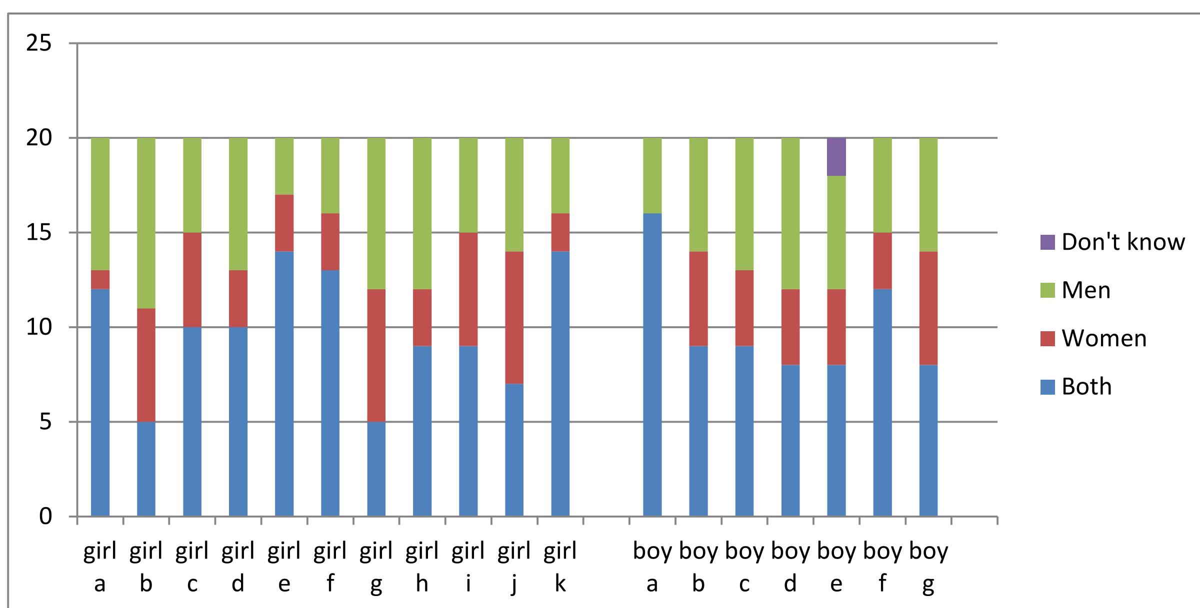


Figure 4e Comparison between girls and boys, Year 3/4 level [n=11+7]

This difference in occupations labelled as gender-neutral is less discernible for the girls and boys at the 3 and 4 Year level (Figure 4e above), with the average for girls 9.8 and the boys almost exactly the same at 10.0. This contrasts with the difference discerned at the Year 7 level (Figure 4f below) as the average number of occupations considered gender-neutral by girls has increased to 12, but has decreased to 8.1 for boys.

The data, in the context of this research, indicates that girls may become less gender-restrictive as they advance towards secondary education, whereas the boys may become more gender-specific. With an identifiable increase in the gender-neutrality of occupations indicated by girls, there has been a parallel decrease in occupations seen as either female or male, from an average of 5.1 at Year 1 level to 3.3 at Year 7 level for women's jobs; from an average of 7.5 to 4.4 for men's jobs.

The decrease in occupations nominated by boys as gender neutral, from 9.8 to 8.1, is paralleled by an increase in gender specific indicators, but the increase is mainly for the number of female-ascribed jobs which has almost doubled [from an average of 3.9 at Year 1 level, to 6.5 at year 7 level]. It is difficult to argue that this number would be consistent in larger studies, or if indeed this apparent attitudinal change is transferred into practical career decision-making. However, both these concerns are worthy of further research.

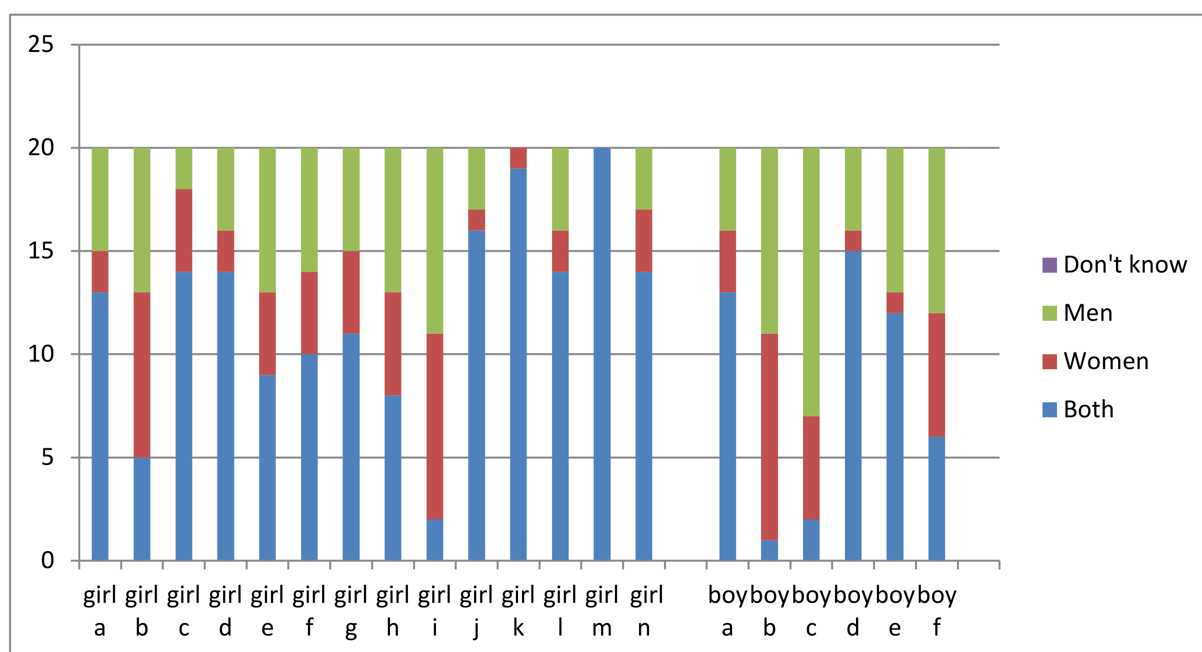


Figure 4f: Comparison between girls and boys, Year 7 level [n=14=6]

4.3.2 The Interviews

Ten children from each grade level – the first 5 girls and 5 boys on the survey lists – were chosen for the semi-structured interviews (Appendix 2.7). As this was a relatively small

number, it was possible for me to conduct all interviews, which contributed to overall consistency. The most challenging aspect of these interviews was the lack of previous contact with the children: I am not a member of staff or the wider school community, so some children were apprehensive about talking with 'a stranger'. The advantage of implementing a project as a school-based researcher is acknowledged, as children would be communicating with a familiar figure and are likely to be more articulate and responsive. Nonetheless, I am experienced working with children of primary age, and generally the interviews were very enjoyable and provided some interesting insights into children's cognitive development and general awareness about paid employment.

The structure of interviews was detailed in Chapter 2, but basically the questions were grouped into three major themes -

Questions 1-3 related to children's definition of work in which they demonstrated their understanding of the concept of work and a basic recognition of the need for paid employment. All children who were interviewed indicated that they knew 'people who work'. The majority named one or both parents, with some also including other family members or friends.

> *My mum and her friends. My nanna and pop work too. And my aunty and uncle work on a farm.* Girl, Year 3

> *Lots of people. My mum and my dad. My two brothers and one of their girlfriends.* Boy, Year 7

Responses to **questions 2 and 3** demonstrated the level of understanding children had of what exactly is entailed in the concept of work, and the reasons underlying people's participation in the workforce. A number of children at the Year 1 level struggled to explain their ideas, but were certainly aware of the link between work → money → food/clothing/housing.

> *You get lots of money because you are working for your family to live.* Boy, Year 1

> *If they don't go to work they don't get any money.* Girl, Year 1

Children at the Year 3/4 and Year 7 levels recognised the need for work to secure an income, but included other aspects like job satisfaction and self-worth.

Well it means they do important tasks. If you're working in the hospital you are going to make people better and if you work in a zoo you are looking after endangered species. If you are doing this, you will feel proud and you will get money. It's important to feel proud about your job. Girl, Year 4

If they go to work like they normally do every day they get paid, and this keeps your family running, to get food, the house, a car.

Boy, Year 4

They go to work to get money, and money for their family too. People work to have fun and socialise with people. Boy, Year 7

People work to get money to buy things and pay house bills. Some people, like nurses, enjoy doing it. Girl, Year 7

Questions 4-6 explored children's knowledge about the role of gender in identifying work options for women and men in the paid labour force, and how individuals decide the type of work they would like to pursue. In considering the necessity for men to work, children at the Year 1 level were generally in agreement, but were more ambivalent about applying a similar imperative for women.

Yes, men have to go to work. It doesn't matter if ladies don't go to work. But men have to build houses. Women don't have to work. They can look after the children. Boy, Year 1

Women only work if they want to work. Two of my friends' mums work but my mum doesn't have to work. Boy, Year 1

Yes, men have to go to work. I don't know why. My mum stays home and looks after my sisters and she's having another baby.
Girl, Year 1

Both girls and boys at the Year 3/4 level were less emphatic about male workplace participation even suggesting shared work roles, and almost unanimously rejected a compulsory work role for women.

Probably men should work but some don't. They like going into bands and earning money there. Woman can work, but sometimes they stay

at home and hand out stuff [volunteer?]. My mum stayed home to look after the children, then went to work. Girl, Year 3

No, men don't have to go to work. They can stay home and look after the baby while the mum goes to work. Women don't have to work. My mum used to work but now she doesn't. Boy, Year 4

Among the Year 7 students interviewed, girls commented that participation in the work force was appropriate for both women and men; and while the boys generally agreed about the necessity for male participation, most rejected any similar compulsion for women.

Men can work if they want to, or if they need to support their families. If they don't work they won't be able to afford stuff. For women, it depends on if they want to work or if they don't. I know some people who just rely on their husbands to work and they just sit around and look after the house while the husband is out working. Boy, Year 7

No, not all men are able to work, they get pensions because they have injuries or something. Some don't have to go to work, and if they can't they get paid by the government. Women don't have to work. The man of the family makes enough money. The wife does the housework and looks after the kids. Boy, Year 7

Yes, men have to work but maybe it depends if their wife works. But if they are single they would have to work or they wouldn't have any money. Women have to work because they can earn money as well, even if they have a husband. It's good for a woman to work.

Girl, Year 7

Yes I think men have to work because the women stay home. I don't really care if men don't work. It's up to them. Women don't have to work unless they're by themselves. Girl, Year 7

The majority of children at all year levels were less confident in explaining 'how people know what work they would like to do'. Few children at Year 1 level had any suggestions although one considered asking 'somebody', and another thought seeing 'other people working and think that would be easy' may be a possibility. Children at the Year 3 and 4 level also struggled to respond, but two did mention the possibility of going to university, and another

expressed the importance of doing 'what you are comfortable with'. A more detailed answer from a Year 4 level girl contended that:

> *People know because as children they can do a test. Now this is something I heard someone say. They go to this place and do a test, like how you learn to drive, you learn to be an artist. Like if you want to be a police officer, you learn how to jump walls, do stunts and shoot people.*

The range of responses from Year 7 children was more diverse, with children demonstrating awareness of further education opportunities and the importance of observing others already in the workforce. Eight of the ten children mentioned choosing an occupation that they 'liked'.

> *They should know when they're little what work they like. My sister wants to be a hairdresser and she wants to do my hair, my friends' hair and mum's hair and she wants to work in town. She does the family's and friends' hair and takes photos to show prospective employers.* Girl, Year 7

> *If they enjoy the work, then they know that they should do that work. If they're good at it.* Girl, Year 7

> *They just try stuff. If they like it they do it, or they do something else. Or friends might tell them it's a good job. My brother was doing ..... and didn't like it. Now he is a ...... and loves it* (Details omitted for anonymity). Boy, Year 7

Questions 7 to 13 focus children's attention on their own aspirations and possible workplace participation, beginning with the query about whether 'you will work when you are grown-up/adult'. Almost 85% of all the children responded positively, while the remaining 15% thought it probable, and a high percentage of children at all levels nominated a potential work role.

> *Yes I will. But first you have to get your tax number. I would build houses and stuff like that. My dad does it.* Boy, Year 1

> *I will probably work because if I have children, like my parents say, if you don't want to work then you won't be getting a lot of money. We can all live in a cardboard box! I think I want to be a chef because as a chef you can work in lots of places and earn a lot of money.*
> Girl, Year 4

Yes I would like to work and get out of the house sometimes. I want to be a vet or an actor. I'd like to take care of animals. Girl, year 4

Yes I'm going to be a nurse, because I want to care for people and my Grandma used to be one. They should get paid a bit better.
Girl, Year 7

Yes definitely. I'm a bright child. I don't know [what I will do]. You've got the sheet of questions. Maybe a lawyer. I have no idea. It depends on what my life leads up to. I'm not saying that's what I want to be. I betcha, I betcha a million dollars it's not probably what I'm going to be. Because life doesn't pan out the way you want it to. Look at Michael Jordan. He was trying to be a plumber. Boy, Year 7

To identify any gendered consideration in their occupational choice, participants were asked to consider if they would select alternative occupations if they were of the opposite sex. Fourteen of the children agreed that they would probably pursue a different career (eight girls and six boys), and a further five children believed that they may change their ideas for employment.

I would still be a builder but I would work in the office under the airconditioner. Boy, Grade 1

I don't think there's really much difference [between a carpenter and a nurse] but there's the technology and everything. If you were a boy nurse they would say you've got a girl's job. But it's a boy's or girl's job I reckon. Boy, Grade 3

Yes I would have to be a carpenter just like my dad. I wanted to be a carpenter but dad said that I needed a man's strength to actually do the job. Girl, Year 7

Boys would want more manual or active jobs, while girls would like to sit down to work and do something and get paid for it.
Boy, Year 7

The question regarding what individuals needed to do to gain the employment of their choice, elicited a range of knowledge, with some children unable to indicate any pre-requisite or pathway, while others had a clear understanding of the need for further study, gaining qualifications, seeking employment in the designated workplace and the need for 'hard work'

and commitment. Both university and TAFE colleges were mentioned by a number of children as part of their future plans.

Similarly, there were many and varied responses to the question regarding parental work roles, but one theme that did emerge was the apparently limited connection between participants' aspirations and their parental role models, for example the Year 7 boy with a civil engineering father who aspired to be a builder or an engineer. In those cases where it was known, there was a considerable disparity between the parents' occupation and the children's aspirations.

4.3.3 What would you like to be when you grow up?

At the completion of each survey, I asked the participants to nominate an occupation that they would like to pursue 'when they grow up'. Of the 58 children involved in the survey, all but two named a potential career. It may have been more expedient to ask that question initially, although the spread of answers does not indicate particular influence from the list of occupations reviewed. Obviously children may change their aspirations many times before reaching post-school age, but in the context of career development theory it was a purposeful exercise.

Did children choose real jobs? (Care, Deans & Brown, 2007).

Did they follow sex-stereotypical roles? (Wahl, 2005).

Were the aspirations of girls and boys comparable? (Sellers, Satcher & Comas, 1999).

The careers nominated by all the participants are listed in Appendix 4b.

All the children surveyed selected occupations that are real, although a few may be considered as less realistic options (for example, racing car driver; actress and gymnast). The range of occupations selected by girls was marginally more diverse at the older year levels, but there was some consistency in adhering to choices that were gender-neutral [for women or men] or female. There were no choices that might be identified as other-gender. Similarly, boys nominated career choices that were gender-neutral or male, and no selections were made from the other-gender group. There was no evidence of girls or boys moving outside of mainstream stereotypical career options. Aspirations of girls and boys were also comparable given that arguably all required some post-secondary school training or education, although relative status and income comparisons may be problematic. For example, while both hairdressing

and building/carpentry involve an apprenticeship pathway, there is an identifiable difference in status and remuneration for these roles.

4.4 Discussion

4.4.1 The limitations of research

The development of this research project was prefaced on the resilience of gender as a salient feature of girls' and women's career aspirations and development. In the contemporary economic and social climate, the importance of women's contribution in the paid labour market has intensified, but the gender boundaries that proscribe pay, conditions and participation have remained relatively impervious (Gherardi, 1994).

While the prevalence of literature on career planning and development highlights the importance of secondary education and post-secondary pathways, the focus of this research is most emphatically on children at the primary school level (ages 5-13). The very limited discussion on the career aspirations of children in this cohort (Kenway, 1993; MacMahon, Carroll & Gillies, 2001; Sampson, 1983) demonstrates, in clichéd terms, that career counselling for many girls at Year 9 and 10 levels, is probably passé. Lufkin (2009) in a most comprehensive document outlining the limited nature of non-traditional career selection, highlights one root cause as a lack of early exposure 'in elementary school' to gender stereotyping. While the proposal for equitable workplace participation is more extensive than females diversifying into non-traditional work roles, the tenet persists: addressing gender stereotypes in career aspirations is most effective when it commences at the early stages of formulating work/gender schemas (Kretchmar, 2009), that is in early childhood.

The data collation and analysis in the preceding chapter demonstrates that, in this study, the concerns about gender limitations appear to be substantiated. An acknowledgement that this is a small-scale project, from one location, does not deny the validity of the findings. To implement a 'broader brush' of commentary would necessarily require replication of the study with other participants, in varied settings. Instigating further school-based and regional research is a parallel objective of the project, and creating a climate for change in addressing gender is eminently suited to action research. Robinson & Jones Diaz (2006) highlight the urgency for early childhood educators to reflect on their own subject position in relation to gender and how this may impact the children with whom they are working. "Educators are in

a positive position to encourage children's location with non-normative gender discourses through the critical work they do with children and their families . . ." (Robinson & Jones Diaz, 2006, 144).

4.4.2 Developing gender schemas

Previous research indicates that children in the early stages of primary school may be developing a range of gender schemas of inclusion and exclusion, including those that relate to work and careers (Kretchmar, 2008). The influence of these normative understandings of separate women's and men's work roles is supported by the data of participant choices, and suggests that there is substance to the assertion that stereotypical gender roles are evident from early childhood (Butler et al, 2002; McLaren, 1996). Without challenge from education and social interventions, they may provide the framework for gender-conforming behaviour (Bussey & Bandura, 1999) and subsequently a negative assessment of other-gender careers that is identifiable from the data. While further exploration is necessary, the consistency of the 'other-gender' responses suggests some uniformity in attitudes and in this situation the identifier or marker is arguably gender.

The potential conflict in transgressing gendered expectations (Clark, 1989; Ruth, 1997; Yelland, 1998) is exemplified by the Grade 3 boy who understands that the choice of nursing as a career may potentially expose him to accusations that this is a 'girl's job', and the number of children who agreed that they would choose differently if they were of the opposite sex. While the origins of career aspirations may be 'elusive' the argument for researching and developing programs for the pre-secondary school level is convincing (Trice et al, 1995). The prevalence of gendered decisions in organising the list of careers supports theory which identifies the circumscription of career aspirations resulting from sex-role compliance (Care, Deans & Brown, 2007). The data provides evidence confirming a narrowing of career aspirations during the primary school years as suggested in Gottfredson's model (Care, Deans and Brown, 2007; Trice et al, 1995) but in this study it appears to be more prevalent for boys than girls, a finding consistent with Wahl's research (2005).

Societal change may account for enhanced possibilities for girls and women, but gender-related cognitions persist as a causal role in the formulation of career interests and aspirations (Weisgram, Bigler & Liben, 2010). An example of societal change might include the attitude of participants to the role of police officer: 75% of the responses identified police officer as

gender-neutral with the relative number increasing at each year level. Wahl (2005) suggests that greater experience and contact with adults in an occupational field may impact on children's perceptions. The rapid increase of women in policing, and their visibility which was mentioned by some participants, would appear to have impacted positively on how the role is depicted. A general societal shift in perceptions of careers available to females may continue to provide an increase in same-sex role models although how this links to aspirations requires further research (Care, Deans, & Brown, 2007). Dominant stereotypes are not immutable (Lorber, 1994) , but in the case of policing it has possibly taken 'deliberate disruption' in the form of affirmative action in recruiting to change its gendered status.

The limited range of career development research for children in the primary school age range restricts opportunity for comparative discussion. To understand the subtle shifts in gendered discourse and societal perceptions, and the impact of same-sex role models requires sustained longitudinal research of girls' attitudes and cognition in diverse settings. Planned educational interventions need a sound theoretical and practical framework. The likelihood for a continuation in focus on addressing the gendered nature of girls' career aspirations seems improbable in an environment of moral dilemma about the boys (AEU, 2000; Mills & Lingard, 1997). However, the responses from girls at all levels of this study indicate that they are absorbing – and making decisions – based on the prevailing normative messages related to the paid labour market.

4.4.3 Gender, careers and theory

Overall, the results suggest that both girls and boys consider female participation in the work force as less necessary than for men, an aspect identified in a number of studies that span the decades (e.g. Brown & Fitzpatrick, 1981; Taylor, 2005), and both sexes alluded quite uncritically to other family responsibilities that may impede women's greater participation. Speaking against the trend, one Year 7 girl (whose mother is employed in a professional occupation) agreed that she "would probably have children" but intended to keep working "like her mother". She detailed how she had observed a family member leave work to care for her children and she had subsequently "become very lazy". In general, where female participation was supported, both girls and boys proposed a link between caring for children and part-time employment.

The trend is evident for boys to become more gender-specific as they progress through primary school, with an increase in jobs seen as either for women or men. This compared to an expansion of the number of gender-neutral options identified by girls for the same age range, which replicates patterns of choice in similar studies (Auger, Blackhurst & Wahl, 2005; Domenico & Jones, 2006), and demonstrates that attitudinal change is an option. While occupational knowledge may increase as children pass through the primary school (McMahon & Watson, 2005) the nature of the change and how and why it occurs is still poorly defined.

Tracking the significant fluctuations in children's choices gives substance to arguments for early intervention in the career development curriculum framework (Schultheiss, 2005) and the formation of self-concept and gender constructs outside prevailing stereotypes. As Skelton (1992) emphasises, developing real choice in career selection is not as simple as providing information about a 'plethora of careers', particularly where, as this project insinuates, gender-laden education and social environments have inculcated resilient attitudes at an early age. Bailey and Nihlen (cited in Watson & McMahon, 2005) suggest that 'exposure' to non-traditional role models may reduce the attribution of gender role stereotypes to specific occupations (the social dimension), without creating noticeable change in career aspirations (the functional or psychological level). The participants in this project demonstrated a fairly consistent symmetry between the social and the psychological perception of most occupational roles, that is, the attribution of gender to work roles was closely linked to their career aspirations.

The existence of occupational aspirations linked to gender may represent an integral aspect of children's social identity and their attempts – in Gottfredson's terms – to compromise to prevailing norms (Care, Deans, & Brown, 2007). Very few of the participants in this study were prepared to contemplate traversing the terrain between what is acceptable for females/males in their perceptions, although there were occasional examples. One Year 7 girl considered all jobs suitable for either sex; one previously mentioned Year 3 boy challenged the perception of nursing as a 'girl's job'; and another Year 7 girl thought she would like to be a builder if she 'had the strength of a man'. Such perceptions were definitely the exception, and even during the survey children offered personal observations sustaining the stereotypes, like 'ladies can't be the Prime Minister' [obviously the data was collected before the elevation of Julia Gillard to the Prime Ministerial position] and 'boys are the doctors, and girls can be their nurses'.

Theories of parental influence on career aspirations has reasonable support in research (see Taylor, Wang, VanBrackie & Kaneda, 2003) and while there were some instances of same-sex parent modelling, this was not a significant feature based on the limited information available. Some boys commented that they wanted to 'work with their dad' or enter a similar occupational field to their father or uncle, but it was not a dominant feature of reasons for career aspirations. Similarly, girls occasionally mentioned a family member or friend in a specific job and considered following their career lead, for example the Year 7 girl who aspired to follow her grandmother into nursing.

In the literature review, the influence of media and popular culture on gender socialisation was identified, but there has been limited research on how this may be interpreted by children in the context of career development (Watson & McMahon, 2005). In their review of research regarding children's career development, Watson and McMahon (2005) cite some of the research over a number of decades that investigated television as a source of occupational learning, explaining the link over a number of decades between gender stereotypes of occupations and television role models. While this question was not a feature of the current research a number of children indicated that television was a source of their information. For example, the figure for gender-neutrality for the occupation of judge in the survey was 60%, somewhat higher than I had anticipated, but numerous children pointed out that they watched shows like 'Judge Judy' and 'Judging Amy' both of which have female judges as the central characters.

Examining the survey data reveals that there were very few non-committal responses [Don't know], and that participants readily attributed the selected occupations to the both/man/women categories. Children are practised in organising and grouping by gender and even the youngest children demonstrated competence in 'sorting' the occupations by their understanding of the cultural constructs of 'maleness and femaleness' evident in everyday life (Starr, 2000). While children varied in the allocation of jobs to the different categories, all were comfortable with organising their thinking in a gendered manner [as with 'girls' and 'boys' toys; 'girls' and boys' clothes; and a range of other uses of the sex signifier], which ascribed to dominant stereotypes (Musolf, 2003; Yelland, 1998). The disparity in applying gender labels to jobs reinforces the concept that there is nothing inherent in the roles themselves, rather that children's choices reflect different experiences or inputs (see Figure 3.1). The choices evident in this study support Stroeher's observation (1994) that many girls preferred 'traditional, nurturing occupations' like teacher, nurse, childcare worker and vet,

while most boys tended towards 'more active and/or outdoors pursuits', like construction worker, firefighter and sportsperson.

The participants' responses at each Year level confirmed that children are beginning to make observations about the world of work and their potential position in paid employment. They demonstrate awareness of why people have 'jobs' and some rudimentary concepts of career selection and pre-requisites. What they also clearly indicate, and this is certainly valid in spite of the limited nature of the research, is that gender dimensions are already directing and constraining their aspirations. The overwhelming indications from those research studies that have been conducted at the primary school level (Alloway, 1994; McMahon, 2007; Magnuson & Starr, 2000; WEEA, 2002) emphasise that deferring learning about 'work' deprives children of valuable opportunities to gain greater insight into the pervasive nature of gender stereotypes and aspects of self-concept. Further teachers and counsellors may lack the confidence and/or understanding of the relevance of implementing curriculum and classroom practices which promote and expand children's existing framework of career development skills and knowledge (Herring, 1998; McIntosh, 2000; Whiston, 2002). The learning continuum in career development should be as essential and rigorous as other areas of children's development learning. Most importantly it should be inclusive and challenge the prevailing discourse of gender stereotyping (Hough, 2009; McIntosh, 2000; National Women's Law Service, 2000).

At the conclusion of each survey I encouraged children to nominate a career that they might pursue 'when they grow up'. Their suggestions, listed in Appendix 4B, are predominantly realistic, even for those at the Year 1 level. This finding is consistent with Gottfredson's theory of stages (cited in Care, Deans & Brown, 2007) which proposes that children in the 3-5 age group [Stage 1] are already engaging with the structures of the adult social world and are therefore likely to select realistic, rather than fantasy, options. What was less evident in individual career selection was evidence of increasingly complex cognition about society and self (Care, Deans, & Brown, 2007): at all three Year levels, specific aspirations followed very similar patterns. Although Year 7 level boys selected more 'professional' work roles the numbers are far too limited to substantiate or discount this trend. One of the restrictive aspects of this project was the reluctance of boys at the Year 3 and 4 and Year 7 levels to participate, but nevertheless the findings should contribute to the on-going discussion of gender and career aspirations at the primary school level.

Chapter 5: Marking time or moving forward?

5.1 Introduction

In her book "The Great Divide" (1989) Clark challenged normative understandings about gender in education and explored the range of practices in the primary school setting which compounded constraints on girls' achievements.

> Gender equity required the explicit study of the construction of gender by both boys and girls. This means providing children with the opportunity to recognise the impact of assumptions about appropriate masculinity and femininity on their lives, their relationships and their aspirations.
>
> Clark (1989, 91).

Nationally and at the state level, focus was on creating and sustaining processes and structures to address those practices impacting on girls' educational success. Through targeted funding initiatives individual teachers, key groups and whole-school working parties firmly established 'gender on the agenda' to initiate change. In the early stages of gender reform Sampson (1983) was extremely critical of the lack of programs and initiatives in Queensland targeting girls' equitable participation, particularly when compared to states such as Victoria and South Australia and, further, identified Queensland as the only state which had not provided professional development for teachers to gain greater understanding of how gender proscribed the career potential of girls.

Nevertheless in Queensland, as in other Australian states, strategies were implemented to redress what was identified as systemic disadvantage for girls in education (Moyle & Gill, 2005). The resultant improvement in the career opportunities for some girls contrasts starkly with teacher practices and school structures which continue to reflect "broader societal inequities" and disparate gender outcomes for the majority of girls (Keddie, 2005). The impetus for change, prevalent in the 1970s, 1980s and the early 1990s apparently stalled. The

Gender Equity in Education Policy (Department of Education, Queensland, 1996) may well have promoted the importance of curriculum in providing for “aspirations, achievements and life choices” unconstrained by gender but Kenway (2008) suggested that by the end of the 1990s gender reform was “slip-sliding away”.

5.2 Marking time

The past decade has demonstrated what Martinez (2003) describes as “an extraordinary backlash” against the relatively modest gains made for girls and women in a diverse range of educational provisions. It is in the context of the not-so-subtle swing of the education pendulum from girls’ needs to boys’ disadvantage that my research project is aiming to renew a focus on the critical implications of gender in the career aspirations of women and girls. Despite the limitations of size and diversity of the participant group, the findings strongly support assertions of the link between gender and career development from the early childhood stages.

A number of thematic issues emerged from the research, which problematised the structure and organisation of career counselling and curriculum related to gender and employment and the world of work. The implications for counselling in elementary settings and the development of curriculum materials and guidelines for pre-service education underpin this study. Thinking critically about gender relations and cultural expectations is part of children’s evolving life skills for which schools share a responsibility (Gatskell, 1992) and which includes experiences “…designed to develop self understanding and a realistic, positive self-concept” (Emmett, 1997). Enhancing the career development process for young children has significant advantages for both girls and boys to realise their potential and contribute to personal well-being unconstrained by gender imperatives. There is a critical need for further research and pilot programs “…to examine strategies for incorporating gender equity and basic careers into primary school curriculum” which was identified in Careers Education for Girls: A Good Practice Review (Access Training and Employment Centre, 2000, 31).

The resilience of sex stereotypes is demonstrated constantly, through a range of sources and inputs including media, movies, literature, the judiciary system, government policy and the gender segregated workplace. The evidence also suggests that children continue to learn the

lessons of socialisation most effectively, and the cultural context replicated in schools compounds the lessons learned in the broader community (Sadker, 1999). I surmise that the influence of teachers is potentially a vital determinant in the direction of children's future career aspirations, influenced by the everyday teaching practices and pedagogical interventions which gender their identities (MacNaughton, 2000) and through the provision of knowledge of how the school and the workplace function (Gaskell, 1992). Any model of life span development:

> '. . . describes the teachable moment as occurring when an individual is physically and psychologically ready to incorporate information into the psyche. If elementary children have not yet developed a clear sense of what is masculine and what is feminine, it appears that early intervention may provide for teachable moments when children can incorporate gender stereotyping and its effect on career choices '.
>
> (Sellers, Satcher & Comas, 1999, 317)

This suggests that pre-service education is fundamental to preparing all teachers to acknowledge, accommodate and address issues of gender. However, as Jo Sanders (2002) describes, teacher education proceeds in a virtually gender-free vacuum. Leaving the issue of gender equity in teacher education up to committed individual faculty members is not an adequate professional response to the need to prepare students. Leaving primary students' learning about gender equity up to their assorted gleanings from television, newspapers and facebook is even worse (Sanders, 2002).

5.3 Moving forward

While there have been few comparative studies, evidence from other national education systems suggest some parallels and consistencies. In the United Kingdom [UK], the Office for Standards in Education (2011) identified that the girls they surveyed had "conventionally stereotypical views about jobs" which appeared at an early age and were retained throughout their school experience. A few years previously the Equal Opportunities Commission in the UK had established an urgent need for change to provide all students with real choices, and their report encouraged the Government to develop a new national agenda for career development and, importantly, tangible support for those practitioners implementing their recommendations. There are indications of some systemic change, but evaluation is in its earliest stages. While there is evidence of comparable projects to promote enhanced career

choice and entry into non-traditional occupations in Australia [trade programs at Tropical North Queensland TAFE are an excellent example of targeted programs at the post-secondary level] they are certainly not universal, and lack on-going funding and resource commitment at the national level. Where such initiatives do exist, they tend to direct attention to the secondary and post-secondary levels of education, with primary education 'invisible' once again.

Dismantling gender barriers to girls' career aspirations cannot develop in an educational vacuum but necessarily must be linked to broader societal change within and without the school fence (Kenway, 1993). Kenway (1993) expanded on her perspective identifying the potential for primary schools to develop girls' skills and understanding related to the negative effects of gender, particularly on their post-school life. The list of recommendations Kenway proposes (1993), which retains credibility and applicability to contemporary settings, includes:

- a proportion of schools' professional development allocation funding directed to gender issues
- prioritise groups for professional development programs, beginning with principals, parents, librarians and counsellors
- evaluate and implement strategic programs promoting gender equity at the pre-vocational level
- network with parents on issues of gender awareness
- expand on the allocation of educational professionals responsible for gender equity at all levels and in all settings

Adapted from Kenway (1993)

As a practising teacher, I realise that some of these proposals have been 'trialled' before, but I would argue that they were spasmodic, intermittent, haphazard and unsupported by many of those in the leadership team. In a review of women's advancement in primary education in Victoria (Ford, 1995), I acknowledged the uncertainty of change which is premised on the imposition of bureaucratic imperatives, although this has proved effective in complying with other government policy directives.

> The imposition of perceived 'penalties' for non-compliance has successfully reduced the legitimacy of opposition to a plethora of new policies. What mitigates the introduction of real equity appears to be based on the political nature of gender issues . . . Arguably the central authority [in this case

> Education Queensland] has the means – but not the will – to pursue school-based systemic change.
>
> Ford (1995, 47)

Implementing gender policy and expecting change without the provision of evaluative markers and accountability reporting requirements has proved an inefficient process, which continues to leave girls and women vulnerable to an emerging gender gap in transition to work, job market opportunities and participation rates (Long, 2005). Their increased disadvantage in employment data, when compared to boys and men, has been an identifiable trend since 2000 ibid), and is most significant for girls and women with lower socio-economic status and/or minority group identity and/or geographic isolation (Georgia Department of Education, 2005).

Girls immersed in a pre-school or primary school environment that promotes gender equity are more likely to develop attitudes of self-efficacy and respond to the challenge of non-traditional career options, stereotyping and perceived barriers (Lufkin, 2009). While aspects of career development may happen unintentionally as children strive to ". . . make sense of their experiences by making comparisons and using concepts" preschools and primary schools present an appropriate and potentially supportive setting for children to explore their understandings (McMahon, 2007, np). In this proposal for early intervention, career development curriculum does not promote occupational choices but rather ". . . is about encouraging them not to foreclose on their occupational options too early on the basis of gender and perceived status . . ." (*ibid*). A similar observation was outlined by the then - Queensland Vocational and Technical Education Minister Gary Hardgrave who identified schools, beginning with primary schools, as holding the answer to Australia's trade skills shortfall. He stated: "I'm not talking about primary school-based apprentices, but engaging kids at an earlier age, giving them some attraction to your trade or profession . . ." through partnerships between industry and education (Heywood, 2006).

Undeniably, what is required is a more holistic understanding of the influences on and processes of children's conceptual knowledge and decision making about careers, in contrast to the fragmented research and curriculum implementation that is currently evident (Watson & McMahon, 2005). As McIntosh suggests (2000, np):

> Informed, empowered career choice is a primary factor that can positively influence an individual's life experience. The process of arriving at this type of a career choice begins in early childhood and continues throughout life. It is not a single decision.

The recognition of career development as a continuum, with discrete skills, attitudes and self-awareness, and an evolving understanding of the workplace could be practically accommodated through a K-12 Career Development Framework (for example the New Hampshire Department of Education, 2010; Pathway Pals, 2008) which acknowledges gender awareness and the role of parents as critical to emerging career aspirations. Implementing educational change is challenging, and research suggests that a whole-school approach is fundamental to achieving real and sustainable change (Gender Equity Taskforce, 1997). The political perspective which underpins gender equity requires a coherent understanding of the constraints of gender and how it overtly and covertly places limitations on individual development, achievement and aspirations. Guidelines for gender equity in career development, as in other areas of curriculum, need to be clearly defined and universal with specific requirements and measurable outcomes (ibid). Most importantly tools for evaluating and assessing systemic change and positive outcomes should support information sharing with all stakeholders.

McMahon and Carroll (2001) support the inclusion of career development in programs at all stages of primary and post-primary education curriculum, based on three relevant assumptions:

> First career development is a lifelong process and as such may be effectively addressed with all age groups. Second, with or without career education, schools are influential in the lives of young people and it is preferable that the influence is intentional through the provision of careers programs. Third, schools are the stepping-off point for young people to further education, training and employment.
>
> McMahon & Carroll (2001)

It is not within the scope of this research to review or evaluate resource materials and teaching/learning programs for career development, but this appears to be an area of increasing interest in Australia (see for example, Australian Blueprint for Career Development, 2009; Education Queensland, 2005; Queensland Studies Authority, 2010). While these resources demonstrate positive potential for a broadly-based curriculum, a cursory perusal indicates that, despite the evidence, critical appraisal of gender stereotypes and the constraints of gender on career aspirations is not included. In their current form the capacity of such programs to challenge gendered assumptions is problematic. So, are we marking time or moving forward?

My research is an encouragement to reintroduce gender equity to the education profession's agenda. While girls are still being exposed to sexist ideas in both the home and the classroom, despite their influx into paid work (Clark & Horan, 2000: abstract), arguing that "Girls can do anything" is a somewhat moot point. What we must do, as informed and dedicated teachers, is demonstrate irrefutably that gender stereotypes are alive and well and flourishing in a primary school near you.

APPENDICES

Appendix 2A: Ethics Approval Form

ADMINISTRATIVE DOCUMENTATION HAS BEEN REMOVED

Appendix 2B: Plain Language Statement

ADMINISTRATIVE DOCUMENTATION HAS BEEN REMOVED

Appendix 2C: Informed Consent, Parent/Guardian

ADMINISTRATIVE DOCUMENTATION HAS BEEN REMOVED

Appendix 2D: Informed Consent/Participants

ADMINISTRATIVE DOCUMENTATION HAS BEEN REMOVED

Appendix 2E: Reinharz's Ten Themes of Feminist Methodology

1. Feminism is a perspective, not a method.
2. Feminist use a multiplicity of research methods.
3. Feminist research involves an on-going criticism of non-feminist scholarship.
4. Feminist research is guided by feminist theory.
5. Feminist research is transdisciplinary.
6. Feminist research aims to create social change.
7. Feminist research strives to represent human diversity.
8. Feminist research frequently includes the researcher as a person.
9. Feminist research frequently attempts to develop special relations with the people studied (in interactive research).
10. Feminist research frequently defines a special relation with the reader.

Appendix 2F: Survey Checklist

JCU
JAMES COOK UNIVERSITY

JAMES COOK UNIVERSITY
TOWNSVILLE Queensland 4811 Australia Telephone: (07) 4781 4111

SURVEY SHEET

Directions: I am going to read to you a list of jobs that people may have. For each job, I would like you to say whether it is a job for both women and men; a job for women; a job for men; or you don't know. If you are not sure about the job, you may ask for more information.

List of jobs:

__ farmer

__ prime minister

__ librarian

__ model

__ judge

__ doctor

__ school principal

__ pilot

__ police officer

__ truck driver

__ nurse

__ news reader

__ plumber

__ computer operator

__ vet (veterinary surgeon)

__ kindergarten teacher

__ basketballer

__ shop assistant

__ hairdresser

__ firefighter

What would you like to be when you grow up?

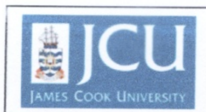
____

^^

Girl/boy: _______ **Grade level: _______**

Campuses at - TOWNSVILLE (07) 4781 4111 CAIRNS (07) 4042 1111 MACKAY (07) 4957 6048

Appendix 2G: Interview Questions



JAMES COOK UNIVERSITY
TOWNSVILLE Queensland 4811 Australia Telephone: (07) 4781 4111

POSSIBLE INTERVIEW QUESTIONS:

1. Do you know anyone who goes to work?
2. What does it mean that they 'work'?
3. Why do people work?
4. Do men have to work?
5. Do women have to work?
6. How do people know what work they would like to do?
7. Do you think you will work when you are grown-up/adult?
8. What do you want to do?
9. Why did you choose that job?
10. Would you choose something different if you were a girl/boy?
11. Why/why not?
12. What will you need to do to get that job?
13. What work do the adults/grown-ups in your family do?

Thank you for talking to me today.

Campuses at - TOWNSVILLE (07) 4781 4111 CAIRNS (07) 4042 1111 MACKAY (07) 4957 6048

Appendix 3A: Social representations of gender in the school setting

Implementing gendered attitudes and teaching is so normative that many educators have difficulty identifying gender differentiation in their classrooms. Adapted from Witt (2001) the list below describes common aspects of social representation of gender, with examples from mainstream classroom settings.

1. Social categories – using gender to categorise students (boys' line and girls' line)
2. Group composition – using group composition to make sense of classroom interaction (forming groups by gender)
3. Material culture – cultural marking of objects as either masculine or feminine (class sport equipment for boys includes footballs; girls' equipment includes skipping ropes)
4. Activities – cultural marking of activities that identifies roles and routines as masculine or feminine (boys move furniture; girls water pot plants)
5. Space – allocating different areas of the classroom or playground to boys or girls (the oval is for boys; climbing equipment for girls)
6. Behavioural style – labelling particular patterns of behaviour as either masculine or feminine (boys don't cry)

APPENDIX 3B – Gender bias in curriculum and teaching resources

From : Sadker, M. & Sadker,D. (1994). *Failing at Fairness: How America's schools cheat girls.* New York. Charles Scribner's Sons.

> *A few years ago my daughter came home upset over her grade. When I looke.d at her paper, I got more angry than she was. At the top of the worksheet were the faces of a man and a woman. At the bottom were different objects – nails, saw, a sewing needle, thread, a hammer, a screwdriver, a broom. The directions said to draw a line from the man to the objects that belong to him and a line from the woman to the objects that go with her. In our house my husband does the cooking and I do the repair work, so you can imagine what the lines on my daughter's paper looked like. There was a huge red F in the middle of her worksheet. I called the teacher right away. She was very understanding and assured me the F wouldn't count. A small victory, I thought, and forgot about it.*
>
> *This year my son is in her class. Guess what he brought home last week. Same worksheet – same F. Nothing has changed at all.*

Appendix 3C: What about the boys?

The sample comments that follow have mainly been derived from media reports and submissions to the Federal Government's Inquiry into the Education of Boys (2002), and demonstrate the intensity of the backlash against modest gains made by girls.

Some boy champions go so far as to contend that schools have become boy-bashing laboratories. Christina Hoff Sommers, author of The War Against Boys, *says the AAUW report, coupled with zero-tolerance sexual harassment laws, have hijacked schools by overly feminizing* [sic] *classrooms and attempting to engineer androgyny.*

Michelle Conlin (2003). *The New Gender Gap.* Business Week_Online May 26, 2003.

It may still be a man's world. But it is no longer, in any way, a boy's. From his first day in school, an average boy is already developmentally two years behind girls in reading and writing. Yet he's often expected to learn the same things in the same way in the same amount of time. While every nerve in his body tells him to run, he has to sit still and listen for almost eight hours a day. Biologically, he needs about four recesses a day, but he's lucky to get one, since some lawsuit-leery schools have banned them altogether.

Michelle Conlin (ibid)

We are also examining, very closely, the way in which exams are structured for boys: boys often know the answers to the exam questions, they just don't understand the question which requires a complex level of operational literacy. . . There's far too much political correctness in this country, which is strangling common sense. . . We're now producing a generation of men whose predominant role models have in fact been women in the classroom, instead of men.

Brendan Nelson (2003) Clearing the way for more male primary teachers *Curriculum Leadership Online Journal.* 1 Jan 2003 [Dr Nelson was the Federal Minister for Education when he made this statement].

Unfortunately, much of the prevailing public interest and media 'hype' surrounding gender issues in education – especially differences in boys' and girls' experiences and outcomes of schooling – amount to little more than anecdotal rhetoric and opinion. Moreover, the postmodernist claptrap espoused by

academics promoting the de-construction of gender-specific pedagogy *is equally unhelpful.*

Kenneth Rowe and Katherine Rowe (2002) *Supplementary submission to the House of Representatives Standing Committee on Education and Training: Inquiry into the Education of Boys*

Women, even poorly educated women, always have a biological role recognized by society. We deprive men of their earner-provider role at our peril.

Babette Francis (2003) *News Weekly* June 26th 2003. [Ms Francis is the co-ordinator of the Endeavour Forum (formerly Women Who Want to be Women)]

The next several entries are from Alan Barron, a serial offender in adversarial discussion of girls' and boys' educational rights

Men were seen as the principal breadwinners and thus expected to provide for their families. A married woman's principal responsibility was to care for her own children at home and direct her energies into domestic responsibilities. Most women accepted this arrangement.

Women are now the most favoured group in society. They not only receive preference in hiring and promotion (thanks to affirmative action laws) but they have more job security and privileges than men.

Both from *Affirmative action: Discrimination against men and their wives.* Online article Memucan Institute of Men's Studies www.memucan.net

This means that girls are dominating not only the VCE but grabbing the lion's share of tertiary enrolments. Boys options are surely but slowly shrinking.

Today's girls are no longer a disadvantaged group who need assistance, but it's the boys who need the most help. History will judge this generation most severely for their naivety in uncritically accepting the nostrums of feminist inspired equality, which has been to the detriment of boys and men, not to mention family life. Generally, boys and men have suffered in silence.

Editorial (1999). Coeducation trends disadvantage boys. *Endeavour Forum Newsletter* www.endeavourforum.org.au/feb99-2.html

Appendix 3D: A list of anti-sexist resources

Guidelines for a Gender-Balanced Curriculum in English Language Arts Pre-K to Grade 6

Fiction: Picture Storybooks

- Alexander, Sally Hobart. *Maggie's Whopper*
- Allinson, Beverly. *Effie*
- Andrews, Jan. *The Very Last First Time*
- Bedard, Michel. *Emily*
- Blume, Judy. *The Pain and the Great One*
- Bunting, Eve. *The Wednesday Surprise*
- Brett, Jan. *Trouble with Trolls*
- Browne, Anthony. *Piggybook*
- Caines, Jeannette. *Just Us Women*
- Coerr, Eleanor.
    - *Sadako*
    - *Josephia Story Quilt*
- Cooney, Barbara.
    - *Hattie and the Wild Waves*
    - *Only Opal* (W)
    - *Miss Rumphius*
- de Paola, Tomie.
    - *Fin M'Coul: The Giant of Knockmany Hill*
    - *Oliver Button Is a Sissy*
    - *Strega Nona's Magic Lessons* (and others in the series)
    - *The Legend of Bluebonnet*
- Dorros, Arthur. *Abuela*
- Emberley, Michael. *Ruby*
- Flournoy, Valerie. *The Patchwork Quilt*
- Fox, Mem.
    - *Hattie and the Fox*
    - *Koala Lou*
    - *Night Noises*
    - *Possum Magic*
    - *Shoes from Grandpa*
    - *Time for Bed*
    - *Wilfrid Gordon McDonald Partridge*
- Gay, Marie-Louise. *Midnight Mimi*
- Gilman, Phoebe. *Grandma and the Pirates*
- Goble, Paul. *The Girl Who Loved Wild Horses*
- Godden, Rumer. *The Story of Holly and Ivy*
- Heyward, DuBose. *The Country Bunny and the Little Gold Shoes*
- Henkes, Kevin.
    - *Chester's Way*
    - *Chrysanthemum*
    - *Jessica*
    - *Sheila Rae, the Brave*
- Hoffman, Mary.
    - *Amazing Grace*

    - *Henry's Baby*
- Hooks, William. *The Ballad of Belle Dorcas*
- Hopkinson, Deborah. *Sweet Clara and the Freedom Quilt*
- Houston, Gloria. *My Great Aunt Arizona*
- Howard, Elizabeth. *Aunt Flossie's Hats (and Crab Cakes Later)*
- Huck, Charlotte. *Princess Furball*
- Hughes, Shirley. *Up and Up*
- Joosse, Barbara M. *Mama Do You Love Me?*
- Jones, Rebecca. *Matthew and Tilly*
- Keats, Ezra Jack. *Maggie and the Pirates*
- Kellogg, Steven. *The Island of Skog*
- Kesselman, Wendy. *Emma*
- Khalsa, Dayal Kaur.
    - *Cowboy Dreams*
    - *I Want a Dog*
    - *Tales of a Gambling Grandma*
- LeGuin, Ursula. *A Ride on the Red Mare's Back*
- Little, Jean. *Jess Was the Brave One*
- McCully, Emily Arnold. *Mirette on the High Wire*
- McKissack, Patricia. *Flossie and the Fox*
- MacLachlan, Patricia. *Mama One, Mama Two*
- Martin, Rafe. *The Rough-Face Girl*
- Merrill, Jean. *The Girl Who Loved Caterpillars*
- Morgan, Allen. *The Magic Hockey Skates*
- Muller, Robin.
    - *Mollie Whoopie and the Giant*
    - *The Nightwood*
    - *Tatterhood*
- Munsch, Robert. *The Paper Bag Princess*
- Nash, Ogden. *The Adventures of Isabel*
- Polacco, Patricia.
    - *The Keeping Quilt*
    - *Pink and Say*
    - *Baboushka's Doll*
    - *Mrs. Kate and Tush*
    - *Chicken Sunday*
    - *Just Plain Fancy*
    - *Thunder Cake*
- Paterson, Katherine. *The King's Equal*
- Pomerantz, Charlotte. *The Chalk Doll*
- Rathman, Peggy. *Ruby the Copycat*
- Reinggold, Faith. *Tar Beach*
- Schroeder, Alan. *Ragtime Tumpie*
- Sheldon, Dyan. *The Whales' Song*
- Stanley, Diane. *Fortune*
- Steig, William. *Brave Irene*
- Stinson, Kathy. *Red Is Best*
- Uchida, Yoshiko. *The Bracelet*
- Waber, Ira. *Ira Sleeps Over*

- Willard, Nancy. *The High Rise Glorious Skittle Skat Roarious Sky Pie Angel Food Cake*
- Williams, Vera.
  - *Music, Music for Everyone*
  - *Something Special for Me*
  - *A Chair for My Mother*
- Wood, Audrey. *Heckedy Peg*
- Yee, Paul. *Roses Sing on New Snow: A Delicious Tale*
- Yolen, Jane.
  - *The Emperor and the Kite*
  - *Owl Moon*
  - *The Ballad of the Pirate Queens*
  - *Sleeping Ugly*
- Young, Ed. *Seven Blind Mice*
- Zolotow, Charlotte.
  - *This Quiet Lady*
  - *William's Doll*

Fiction: Novels

- Alexander, Lloyd.
  - *Philadelphia Adventure*
  - *Westmark* (and sequels: *The Kestrel*, *The Beggar Queen*)
- Avi.
  - *The True Confessions of Charlotte Doyle*
  - *Bright Shadow*
  - *Blue Heron*
- Babbitt, Natalie. *Tuck Everlasting*
- Banks, Lynne Reid. *The Farthest Away Mountain*
- Barron, T. A.
  - *Heartlight*
  - *The Ancient One*
  - *The Merlin Effect*
- Blos, Joan. *A Gathering of Days: A New England Girl's Journal 1830-1832* (W)
- Brink, Carol Ryrie. *Caddie Woodlawn*
- Brooke, William. *Telling of the Tales*
- Bruchac, Joseph, and Gayle Ross. *The Girl Who Married the Moon*
- Buffie, Margaret. *Who Is Frances Rain?*
- Burnett, Frances Hodgson. *The Secret Garden*
- Byars, Betsy. *The Glory Girl*
- Campbell, Ann. *Once Upon a Princess and a Pea*
- Cassedy, Sylvia. *Behind the Attic Wall*
- Choi, Sook Nyul. *Year of Impossible Goodbyes*
- Clapp, Patricia. *Witches' Children*
- Cleary, Beverly.
  - *Ramona the Brave* (and sequels)
  - *Strider*
- Coerr, Eleanor. *Sadako and the Thousand Paper Cranes*
- Cushman, Karen. *Catherine, Called Birdy*
- Dahl, Roald.

  - *Matilda*
  - *The BFG*
- Ellis, Sarah.
  - *Pick Up Sticks*
  - *The Baby Project*
- Estes, Eleanor. *The Hundred Dresses*
- Field, Rachel. *Calico Bush*
- Fitzhugh, Louise. *Harriet the Spy* (W)
- George, Jean Craighead.
  - *Dear Rebecca, Winter Is Here* (W)
  - *Julie of the Wolves*
- Garrigue, Sheila. *The Eternal Spring of Mr. Ito*
- Guy, Rosa. *The Friends*
- Hahn, Mary Downing.
  - *Stepping on the Cracks*
  - *Daphne's Book*
- Hamilton, Virginia.
  - *Cousins*
  - *Plain City*
- Hautzig, Esther. *The Endless Steppe: Growing Up in Siberia*
- Heide, Florence Parry. *Growing Anyway Up*
- Hesse, Karen. *Letters from Rifka* (W)
- Houston, Jeanne Wakatsuki, and James D. Houston. *Farewell to Manzinar*
- Hudson, Jan. *Sweetgrass*
- Hughes, Monica.
  - *The Isis Trilogy*
  - *The Tomorrow City*
- Hurmence, Belinda. *A Girl Called Boy*
- Innocenti, Robert. *Rose Blanche*
- Johnson, Angela.
  - *Tell Me a Story, Mama*
  - *Toning the Sweep*
- Johnston, Julie.
  - *Adam and Eve and Pinch Me* (W)
  - *Hero of Lesser Causes*
- Harris, Dorothy Joan. *Don't Call Me Sugarbaby*
- Kendall, Carol. *The Gammage Cup*
- Kherdian, David. *The Road from Home*
- Kinsey-Warnock, Natalie. *The Canada Geese Quilt*
- Konigsburg, E. L. *From the Mixed-Up Files of Mrs. Basil E. Frankweiler*
- Laird, Elizabeth. *Kiss the Dust*
- L'Engle, Madeleine. *A Wrinkle in Time* (and others)
- Lisle, Janet Taylor. *Afternoon of the Elves*
- Lowry, Lois.
  - *Number the Stars*
  - *Anastasia Krupnik* (and sequels)
- Lunn, Janet.
  - *Shadow in Hawthorn Bay*
  - *The Root Cellar*
- Lyon, George Ella. *Borrowed Children*

- Lyons, Mary E. *Letters from a Slave Girl: The Story of Harriet Jacobs* (W)
- McKinley, Robin.
  - *Beauty*
  - *The Blue Sword*
  - *Deerskin*
  - *The Hero and the Crown*
- McCaughrean, Geraldine. *One Thousand and One Arabian Nights*
- MacLachlan, Patricia.
  - *Sarah, Plain and Tall*
  - *Cassie Binegar*
  - *Unclaimed Treasures*
- Mahy, Margaret. *The Changeover*
- Marsden, John. *So Much to Tell You* (W)
- Matas, Carol.
  - *The Burning Time*
  - *Lisa* (in U.S.: *Lisa's War*)
- Miles, Betty.
  - *The Real Me*
  - *Maudie, Me & The Dirty Book*
- Mills, Lauren. *The Rag Coat*
- Mohr, Nicholasa.
  - *Felita*
  - *Going Home?*
- Montgomery, L. M. *Anne of Green Gables*
- Mori, Kyoko. *Shizuko's Daughter*
- Morris, Judy K. *The Kid Who Ran for Principal*
- Naidoo, Beverley.
  - *Journey to Jo'burg*
  - *Chain of Fire*
- O'Brien, Robert. *Z for Zachariah*
- O'Dell, Scott.
  - *Black Star, Bright Dawn*
  - *Island of the Blue Dolphin*
  - *Sing Down the Moon*
- O'Neal, Zibby. *The Language of Goldfish*
- Orlev, Uri. *Lydia, Queen of Palestine*
- Paterson, Katherine.
  - *Flip-Flop Girl*
  - *The Great Gilly Hopkins*
  - *Jacob Have I Loved*
  - *Lyddie*
- Paulsen, Gary. *Nightjohn*
- Pearson, Kit. *The Sky Is Falling*
- Pfeffer, Susan Beth. *Kid Power*
- Pullman, Philip. *The Ruby in the Smoke*
- Rappaport, Doreen. *Trouble in the Mines*
- Reiss, Johanna. *The Upstairs Room*
- Rinaldi, Ann.
  - *In My Father's House*
  - *The Last Silk Dress*

    - *A Break with Charity*
    - *The Fifth of March*
- Roberts, Willo Davis. *The Girl with the Silver Eyes*
- Rocklin, Joanne. *Dear Baby* (W)
- Rylant, Cynthia. *Missing May*
- Schlee, Ann. *Ask Me No Questions*
- Sebestyn, Ouida. *Words by Heart*
- Siegel, Aranka. *Upon the Head of the Goat*
- Smucker, Barbara. *Underground to Canada*
- Snyder, Zilpha Keatley. *Libby on Wednesday*
- Speare, Elizabeth. *The Witch of Blackbird Pond*
- Spinelli, Jerry. *There's a Girl in My Hammerlock*
- Staples, Suzanne Fisher.
    - *Shabanu: Daughter of the Wind*
    - *Haveli*
- Takashima, S. *A Child in Prison Camp*
- Taylor, Cora.
    - *Yesterday's Doll* (first published as *The Doll*)
    - *Julie*
- Taylor, Mildred.
    - *Roll of Thunder*
    - *Hear My Cry* (and sequels)
- Taylor, Theodore. *The Trouble with Tuck*
- Thomas, Marlo, et al. *Free to Be, You and Me*
- Toll, Nelly. *Behind the Secret Window: A Memoir of a Hidden Childhood During World War Two* (W)
- Turner, Anne. *Nettie's Trip South* (W)
- Uchida, Yoshiko. *Journey to Topaz: The Story of the Japanese-American Evacuation*
- Voigt, Cynthia.
    - *Dicey's Song*
    - *Homecoming*
    - *The Callender Papers*
- Vos, Ida. *Hide and Seek*
- Walsh, Jill Paton. *A Parcel of Patterns*
- Webster, Jean.
    - *Daddy Long Legs* (W)
    - *Dear Enemy* (W)
- White, E. B. *Charlotte's Web*
- Yolen, Jane. *The Devil's Arithmetic*

Informational Books

- Ayer, Eleanor H. *Margaret Bourke-White: Photographing the World*
- Bisel, Sara C. *The Secrets of Vesuvius*
- Bondar, Roberta. *On the Shuttle: Eight Days in Space*
- Brooks, Polly Shyer. *Queen Eleanor, Independent Spirit of the Medieval World: A Biography of Eleanor of Aquitaine*
- Chang, Ina. *A Separate Battle: Women and the Civil War*
- Cummings, Pat. *Talking with Artists* (biographies of children's book illustrators)
- Edeen, Susan, and John Edeen. *Women Mathematicians*

- Felton, Harry. *Deborah Sampson: Soldier of the Revolution*
- Frank, Anne. *The Diary of a Young Girl*
- Freedman, Russell.
    - *Children of the Wild West*
    - *Eleanor Roosevelt: A Life of Discovery*
- Fritz, Jean. *Homesick: My Own Story*
- Gardner, Jeanne Lemonnier. *Mary Jemison, Indian Captive*
- Hyman, Trina Schart. *Self-Portrait: Trina Schart Hyman*
- Igus, Toyomi, ed. *Great Women in the Struggle* (Series: Book of Black Heroes)
- Jackson, Guida. *Women Who Ruled*
- Jakes, John. *Susanna of the Alamo: A True Story*
- Konigsburg, E. L. *A Proud Taste for Scarlet and Miniver* (on Eleanor of Aquitaine)
- Krensky, Stephen. *Four against the Odds*
- Lanker, Brian. *I Dream a World: Portraits of Black Women Who Changed America*
- Little, Jean. *Little by Little: A Writer's Education*
- Lyons, Mary E. *Sorrow's Kitchen: The Life and Folklore of Zora Neale Hurston*
- McGovern, Ann. *The Secret Soldier: The Story of Deborah Sampson*
- McKissack, Patricia and Frederick McKissack. *Sojourner Truth: Ain't I a Woman?*
- Margolies, Barbara A. *Rehma's Journey*
- Mills, Jane. *Womanwords: A Dictionary of Words about Women*
- Naylor, Phyllis Reynolds. *How I Came to Be a Writer*
- Rappaport, Doreen. *American Women: Their Lives in Words*
- Reimer, Luetta, and Wilbert Reimer. *Mathematicians Are People Too*
- Rolka, Gail Meyer. *100 Women Who Shaped History*
- Rowland, Della. *Sacajawea, Guide to Lewis and Clark*
- Seager, Joni, and Ann Olson. *Women in the World: An International Atlas*
- Shiels, Barbara. *Winners: Women and the Nobel Prize*
- Stanley, Diane. Cleopatra Stanley, Diane, and Peter Vennema. *Good Queen Bess: The Story of Elizabeth I of England*
- Stanley, Fay. *The Last Princess: The Story of Princess Ka'iulani of Hawai'i*
- Stevens, Bryna. *Frank Thompson: Her Civil War Story*
- Uchida, Yoshiko. *The Invisible Thread: A Memoir*
- Veglahn, Nancy. *Women Scientists*
- Webb, Michael. *Marie Curie: Discoverer of Radium*

Poetry

- Adoff, Arnold. *In for Winter, Out for Spring*
- Carlstrom, Nancy White. *Wild Wild Sunflower Child Anna*
- de Regniers, Beatrice Schenk. *A Week in the Life of Best Friends and Other Poems of Friendship*
- Giovanni, Nikki. *Spin a Soft Black Song*
- Greenfield, Eloise. *Honey I Love, and Other Poems*
- Hoberman, Mary Ann. *Fathers, Mothers, Sisters, Brothers*
- Joe, Rita. *Song of Eskasoni: More Poems of Rita Joe*
- Johnson, E. Pauline. *Flint and Feather: The Complete Poems of E. Pauline Johnson*
- Kuskin, Karla. *The Rose on the Cake*
- Livingston, Myra Cohn. *I Never Told and Other Poems*
- Martz, Sandra, ed. *When I Am an Old Woman I Shall Wear Purple*
- Thomas, Joyce Carol. *Brown Honey in Broomwheat Tea*

- Turner, Anne. *Grass Songs: Poems of Women's Journey West*
- Viorst, Judith.

Selected teacher resources: a beginning bibliography

(Books and journals which address the issue of gendered literature)

Fox, Mem. "Men Who Weep, Boys Who Dance: The Gender Agenda between the Lines of Children's Literature" *Language Arts* 70 (1993): 84-88.

McCracken, Nancy, and Bruce Appleby, eds. *Gender Issues in the Teaching of English*. Portsmouth, NH: Boynton Cook, 1992.

Rehard, Karen. "Girl Power" *Book Links* (July 1993): 53-56.

Sadker, Myra, and David Sadker. *Failing at Fairness: How America's Schools Cheat Girls*. New York, NY: Charles Scribner's Sons, 1994.

Streitmatter, Janice. *Toward Gender Equity in the Classroom*. New York: SUNY, 1994.

Temple, Charles. "'What if Beauty Had Been Ugly?' Reading against the Grain of Gender Bias in Children's Books." *Language Arts* 70 (1993): 89-93.

National Council of English Teachers (1995)

Appendix 3E: What we need to know about gender and technology

Jo Sanders (2005). Gender and technology in education: A research review. In Skelton, Chris; Francis, Becky, & Smulyan, Lisa (2006). *Handbook of Gender in Education*. London. Sage Publications.

- We know that parental influence on daughters' technology interests and behaviour varies by SES and educational level, but does it vary by racial/ethnic group?
- There is a great deal of research on attitudes and on behaviour, but what is the causative direction? Does it vary by student characteristics? If so, what characteristic are relevant?
- Does computer game-playing in childhood lead to technology competence and careers as adults?
- Is stereotype threat a factor in females' computer technology behaviour and performance?
- What is the relationship, if any, between role models and females' academic achievement and persistence in technology? Does this vary by race/ethnicity or other characteristics?
- What is the relationship, if any, between collaborative learning and females' academic achievement and persistence in technology? Does this vary by race/ethnicity or other characteristics?
- What is the relationship, if any between single-sex learning environments and females' academic achievement and persistence in technology? Does this vary by race/ethnicity or other characteristics?
- Are there curricular approaches that correlate with persistence in technology? What curricular approaches are better for different groups of learners and which characteristics are relevant in light of females' (and males') multiple learning styles?
- \What approaches to staff development are most effective with different groups of teachers and which teacher characteristics are relevant?

Appendix 3F: Once upon a time . . .

Once upon a time there lived a very beautiful little girl named Cinderella (Snow White, Sleeping Beauty, Rapunzel . . . or even Kate). Her nature was as lovely as her face. Gentle, kind, accepting, modest, obedient and sweet, she never complained or became peevish, though she suffered greatly at the hands of circumstance and of cruel people. Because she was good-natured and uncomplaining, because she asked for little and gave a great deal, her beauty shone, and a handsome prince came along, fell in love with her, and took her away to his castle, where the pair lived happily ever after.

The End

Sheila Ruth (1990). *Issues in Feminism: An Introduction to Women's Studies* California. Mayfield Publishing Company.

Appendix 3G: 'Wordles'

Can you identify the girls' list and the boys list?

Appendix 3H: Responses to the suggestion that career counselling should be introduced into the primary school program.

A selection of letters from the Opinion Page: The Australian 06/04/09

Whatever happened to allowing a child to be a child, and not a miniature version of those adults prodding and manipulating them? Haven't we already created an environment where our children are denied a natural childhood and exploited from the time they are born?

I'm delighted to see the recommendation for infant career counselling. Any shortage of firemen or astronauts is unlikely to persist.

Excellent idea – boys should be given the choice of policeman or fireman and girls can choose between nursing and looking after small, furry animals.

All the toddlers of my acquaintance have known exactly what they wanted to be when they grow up: astronauts, red Indians, train drivers, explorers and ballerinas, to name just a few. Australian toddlers' career aspirations are perfect just as they are.

When my youngest was five she wanted to be a footpath.

Appendix 3I : What are the implications for pre-service education?

David Sadker (2001) quotes a study by Moore and Trahan (1997) which demonstrates the pervasive nature of sexism.

A Sociology of Gender Course syllabus developed and taught by a fictitious Wendy Barker was distributed to students enrolled in 17 different courses. The students were asked to rate the syllabus according to a number of questions. Many student ratings indicated that the course was imbued with bias, promoted a political agenda, and contained exams and papers that were too subjective. While all students reflected a bias against the female instructor, the bias was strongest among male students. When the exact same syllabus, only this time developed and taught by William Barker, a fictitious male, was distributed to a similar group of students, the evaluations instantly became more positive. Now the course was rated as far less biased, the work appeared fair and reasonable, the instructor credible and available to students. Taught by a male, the same course was considered more comprehensive and more attractive.

Appendix 4A: Raw data from the survey

subject	grade	gender	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1	m	b	b	b	b	m	m	b	b	b	b	w	b	m	b	b	w	m	w	w	m
2	1	f	m	b	w	w	b	b	m	m	w	m	w	b	m	b	b	w	m	b	w	m
3	1	f	b	b	b	w	b	b	b	b	m	m	w	b	m	b	b	b	m	b	w	m
4	1	f	b	m	b	w	b	b	m	b	b	m	w	b	m	b	w	w	m	b	w	m
5	1	m	b	d	w	w	m	b	m	b	b	m	b	b	m	w	b	w	b	b	w	m
6	1	f	m	d	w	b	m	b	m	m	b	m	w	d	m	d	b	b	m	b	w	m
7	1	f	b	m	w	w	m	b	b	b	b	m	b	m	m	m	b	w	m	b	w	m
8	1	m	m	m	w	m	b	b	m	m	b	m	w	b	m	w	w	w	m	b	w	m
9	1	f	m	m	w	w	m	m	b	m	w	m	b	w	m	b	b	w	m	b	w	m
10	1	m	b	b	b	b	m	m	b	b	b	m	w	b	m	b	w	b	m	b	w	m
11	1	f	m	m	w	w	w	w	m	m	b	m	w	b	m	m	b	w	m	w	w	m
12	1	m	b	m	b	b	b	b	m	b	b	m	w	b	b	b	b	b	b	b	w	m
13	1	m	b	m	w	w	m	b	b	m	m	m	w	b	m	m	b	w	m	b	w	m
14	1	m	b	m	w	b	b	b	m	m	m	m	w	b	m	w	b	w	m	w	w	m
15	1	f	b	d	w	w	w	m	m	m	b	m	w	b	m	b	w	b	m	b	w	b
16	1	m	b	m	b	w	b	b	b	b	b	b	w	b	m	b	b	b	b	b	w	m
17	1	m	b	w	w	b	b	b	b	b	b	b	b	b	m	b	b	b	b	b	w	m
18	1	f	m	m	w	w	b	w	m	m	w	m	w	m	w	m	b	b	m	b	w	m
19	1	f	m	m	b	w	b	b	m	m	b	m	b	w	m	b	b	b	m	b	w	m
20	1	m	m	m	w	b	m	m	m	m	b	m	b	m	m	w	b	w	b	b	b	m
21	4	f	b	m	b	w	m	b	b	b	b	b	b	b	m	m	b	b	m	b	b	m
22	4	f	m	m	w	w	b	b	b	m	m	m	w	b	m	m	w	w	m	b	w	m
23	4	f	m	b	w	b	m	m	b	b	b	m	w	b	m	w	b	w	b	b	w	b
24	4	m	b	m	b	b	b	b	b	m	b	m	b	b	m	b	b	b	b	b	b	b
25	4	f	m	b	w	w	b	b	m	b	b	m	w	b	m	b	b	b	b	b	b	m
26	4	f	b	b	w	w	b	b	b	m	b	b	w	b	m	b	b	b	b	b	b	m
27	4	m	b	m	b	w	b	m	b	b	b	m	w	m	m	b	w	w	b	b	w	m
28	4	m	b	m	w	w	m	b	m	m	b	b	w	b	m	b	b	b	m	b	w	m
29	4	f	b	m	w	w	b	b	b	m	b	b	b	b	m	b	b	w	b	b	b	m
30	4	f	m	b	w	w	b	m	m	m	b	m	w	m	m	b	w	w	b	w	w	m
31	4	m	m	m	b	w	m	b	b	m	b	m	w	b	m	m	b	w	b	b	w	m
32	4	m	b	b	d	w	b	m	m	m	b	m	w	d	m	b	b	w	b	b	w	m
33	4	m	b	m	b	w	m	b	b	m	b	m	b	b	m	b	w	b	b	b	w	b
34	4	f	m	m	w	b	b	b	m	m	b	m	w	b	m	m	b	b	b	b	w	m
35	4	f	b	m	w	w	b	b	b	m	b	m	w	b	m	w	b	w	b	b	w	m
36	4	f	m	m	w	w	b	b	b	m	b	m	w	b	m	w	b	w	b	w	w	m
37	4	f	b	b	b	w	b	m	b	b	b	b	w	m	m	b	b	b	b	b	b	m
38	4	m	b	b	w	w	w	b	b	b	b	m	w	m	m	m	w	b	m	b	w	m
39	7	f	b	m	b	b	b	b	m	m	b	b	b	m	m	b	w	b	b	b	w	b
40	7	m	b	b	b	b	b	b	b	m	b	m	b	b	m	w	b	b	b	w	w	m
41	7	m	m	m	w	w	w	b	m	m	m	m	w	w	m	w	w	w	m	w	w	m
42	7	f	m	b	w	b	w	b	b	m	m	m	w	b	m	w	w	w	m	w	w	m
43	7	f	m	b	w	b	b	b	b	b	b	m	w	b	b	b	b	w	b	b	w	b
44	7	f	b	b	b	b	b	b	b	m	b	m	b	b	m	b	b	w	b	b	w	m
45	7	m	m	m	w	w	m	m	m	m	m	m	w	w	m	m	b	w	m	b	w	m

46	7 f	m	m	b	w	m	b	b	m	b	m	w	b	m	b	b	w	b	b	w	m
47	7 f	b	b	b	b	b	m	b	m	b	m	w	b	m	w	b	w	m	b	w	m
48	7 m	b	b	b	b	b	b	b	b	b	m	b	b	m	m	b	b	m	b	w	b
49	7 f	b	b	b	b	b	m	b	b	m	m	w	b	m	b	w	w	m	b	w	b
50	7 f	m	b	b	w	b	m	b	m	m	m	w	w	m	b	w	b	m	b	w	b
51	7 f	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b
52	7 f	m	m	w	w	w	m	b	m	m	m	w	w	m	m	w	w	b	w	w	m
53	7 m	m	m	b	b	b	b	b	m	b	m	b	b	m	b	b	b	b	w	w	m
54	7 f	m	b	w	b	b	b	b	b	b	m	b	b	b	b	b	b	b	b	b	m
55	7 f	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	w	b
56	7 f	b	b	b	w	b	b	b	b	b	m	b	b	m	m	b	b	b	b	w	m
57	7 m	b	m	w	b	m	m	b	b	m	m	w	w	m	m	w	w	b	b	w	m
58	7 f	b	b	b	b	m	b	b	b	b	b	w	b	b	b	b	w	m	w	b	m
59																					
Total m	23																				
Total f	35																				
20	Total b	34	24	26	24	35	40	38	24	44	12	19	41	6	32	42	27	31	47	10	11
18	Total w	0	1	31	33	6	2	0	0	3	0	39	7	1	11	16	31	0	11	48	0
20	Total m	24	30	0	1	17	16	20	34	11	46	0	8	51	14	0	0	27	0	0	47
58	Total d	0	3	1	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0

Appendix 4B: Participants' nominated career aspirations

Year 1 Level:

Girls:	**Boys:**
Police officer	Firefighter
Artist	Police officer
Teacher	Police officer
Teacher	Builder/scaffolder
Vet	Police officer
Police officer	Firefighter
Police officer	Motor bike racer
Hairdresser	Police officer
Hairdresser	Racing car driver
Nurse	Carpenter

Year 3/4 Level:

Girls:	**Boys:**
Actress	Carpenter
Teacher	Scientist
Zookeeper	Vet
Don't know	Builder

Chef

Photographer

Chef

Hairdresser

Masseuese

Hairdresser

Environmentalist

Hairdresser

Gymnast

Actress

Footballer

Doctor

Architect

Construction worker

Year 7 Level:

Girls:

Police officer

Don’t know

Hairdresser

Office worker

Actress

Doctor

Nurse

Childcare worker

Vet

Boys:

Scientist

Vet

Engineer

Outdoor worker/carpenter

Engineer

Lawyer

Hairdresser

Teacher

News reader

Vet

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