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# **EXCEPTIONAL PIONEERS:**

**Women in Trades, Tertiary Education,  
and Collaborative Research**

**A thesis presented in partial fulfilment  
of the requirements for the degree of  
Master of Education (Adult Education)  
at Massey University, Wellington  
New Zealand**

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**2002**

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## ABSTRACT

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This thesis explores women's experience in trades education in Aotearoa/New Zealand polytechnics in the late 1990s. It highlights issues, which are still affecting women in spite of discourses of equal opportunity. While looking at reasons for attrition, it also celebrates the courage and determination of women pioneers in trades and tertiary education.

Three case studies chosen from 23 research participants emphasise the issues for women in the trades and are used to develop themes for analysis. Interviews were also carried out with staff working in trades education. Current literature and three key advisors assisted in creating a wider perspective of the issues. The two researchers are central to the research process. A collaborative and feminist methodology was used to produce the thesis in a safe, productive and trusting environment, both for the researchers and the participants.

The experience of women in the trades provides a link to compare women's experience in trades education to the experience of women educators in male-dominated educational organisations. The process of collaboration is explored for its usefulness to this post-graduate research.

The incorporation of trades culture into tertiary education culture produced some conflicts in philosophies of education, highlighting inconsistencies in equitable practice. Women's experiences in the trades do not appear to have changed significantly in the last 20 years and centre around issues of gender, sexuality, power and culture. Their experiences represent evidence of women in tertiary education generally and the inequities that still exist. The future for women in educational organisations is dependent upon constructive achievement in the re-culturing of tertiary educational organisations to make equitable practice part of the fabric of those organisations.

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## ACKNOWLEDGEMENTS AND DEDICATION

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We dedicate this thesis to all the exceptional pioneers who have been and who are in the trades and trades education and to the educators who have supported them. All have had to transverse boundaries of gender, culture, sexuality and power. This thesis is for all those women who stand up and make inequities visible.

To our children and our grandchildren – we have fought to make this world more inclusive of diversity, we have said what some did not want to hear, we have made visible what others would like to keep invisible and irrelevant. It has taken courage, wisdom, energy and determination to keep going when we were disillusioned and weary. This is part of your heritage. Take it and be pioneers if you will – strength to you on your journeys.

We acknowledge the courage and strength of the women participants, who allowed their stories to be told so that women’s experience in trades education does not go unheeded. We acknowledge marg gilling, our supervisor, who insisted we be ourselves. We acknowledge Eleanor Gully, Wendy Neale and Kim Hunt, our key advisors, who affirmed our journey and the experiences of the women participants in this research. We acknowledge our partners, Laureen Nation Plimmer and Jim Gray, for their love, understanding, patience and encouragement. We thank Tina Scott and Jill Abigail for their precision and expertise when checking our thesis and our work peers for their listening and encouragement. To Nicola Armstrong - in life and death you inspired us, and so many women to use their courage and strength to bring women’s issues to the attention of academic research.



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**“Me aro ki te hā o Hine-ahu-one”<sup>1</sup>**

Pay heed to the dignity and essence of women

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<sup>1</sup> Maori proverb cited in Ministry of Women’s Affairs, 1999.

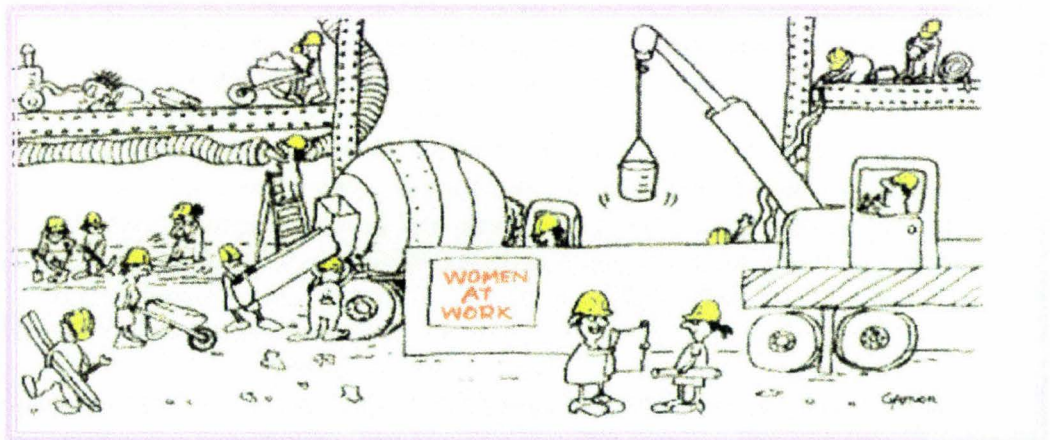
## Chapter 1

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# INTRODUCTION AND METHODOLOGY

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### Woman at Work<sup>2</sup>



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<sup>2</sup> Taken from *Women and Work* Vol 17, No 2, August 1996

## WHERE IT ALL STARTED

*They'd just argue. It was me [against] eight blokes who all agreed with each other, then I'd be in this horrible position where I felt I didn't belong there. I had to work there. It was just horrible, alienating, isolating ... I would withdraw.*



*It was very much an aspect of physical danger, because they were all in this room and they were all men and they were all talking about these 'freaks'. That's the weird thing, 'cause what it did to me was, "Oh, they know I'm a dyke or do they know?" I knew they knew...*



*It's like having these psychic splits all the time. It's like, all you want to do is be better at your job than everyone else ... and suddenly you are really conscious of something else ... belonging or fitting in ...*



*It made me feel just crap, because there is only one of me ...*



*For me, the first three months were a battle, absolute battle and just like coming home in tears and just thinking, "Fuck this". It wasn't worth it ...*



*I remember [him] talking about a rape scene, how they'd got this young woman and they were real proud about it and patting each other on the back.*



*At the smoko, for the first time in my life I hated being female.*



When working with women in tertiary education, we heard very similar stories to these quotes, which are taken from the research data. We believed then that this must have some bearing on women's learning and attrition. The fear, isolation and harassment apparent in these quotes give the reader some idea of the culture these women worked in every day. It was common knowledge in New Zealand polytechnics that the number of women in the trades was low and attrition rates were high in trades courses, especially for women in foundation courses. When working with women in trades education, we knew these experiences must have some bearing on women leaving or not even attempting to enter trades education. However, it has been difficult to uncover the real reasons.

Stories like these, from strong pioneering women whose self-esteem was shattered, were the reason we started looking at women in trades education. We could not believe that women had to work under such conditions. After all, this was the 1990s, where women were supposed to be 'liberated' and free to do as they pleased. This was certainly not the case in trades education. We strongly believed in equitable education and we wanted to do something to make a difference. On investigating possible reasons for the low numbers, we were told by well-meaning teachers that women did not enter trades because they did not like the work - it was too dirty, too physically demanding and not 'women's work'. We asked if the polytechnics had run any women-only courses, thinking this may encourage women. They said, 'Yes, we did that, it didn't work'. We were not surprised. Later, when talking to women, we found that they loved the work, but the culture in which they had to work and study presented many challenges.

As two women working in one of the main trades education polytechnics in Aotearoa/New Zealand, we had daily contact with women in trades education. Part of Jesse's work as Women's Education and Equity Coordinator was to encourage more women students into the trades' education areas, to work with women who experienced harassment and to develop systems and practices that worked for women students. In spite of our knowledge of women's negative experiences in trades education, we believed that we could find ways to make a difference, that barriers could be removed and that women could have equitable education. We wanted to know what these barriers really were and what we could do to remove them, so that we could encourage women to access, participate and succeed in trades education.

#### A FEMINIST METHODOLOGY

As feminist researchers, we decided to ask the women who knew about trades education. This included, those who had been, or were participating in, trades education, either, as students or tutors. Using our feminist methodology we wanted to go deeply into the experiences of women in trades education. In order to do this we needed to form

*... a 'deep identification' that breathes life into that which is studied and into the woman doing the study is another way in which some feminist*

*researchers try to break out of conventional scientific strictures.*  
(Reinharz, 1992:232)

Reinharz (op. cit.:240) identifies ten themes which apply to feminist research. Some of the relevant themes pertinent to this research are

- 1 Feminism is a perspective, not a research method  
Our research methodology has developed from our feminist practice, which has led us to construct our collaborative methodology.
- 2 Feminist research is guided by feminist theory  
Our feminist theoretical perspective involves a multiplicity of feminist theories and probably a mixture of radical and post structural feminism.
- 3 Feminist research may be trans-disciplinary  
Our trans-disciplinary approach includes a socio-psychological perspective as well as an educational perspective linking with the following Reinharz theme
- 4 Feminist research aims to create social change  
This had been our initial aim and remains inherent within the thesis
- 5 Feminist research frequently includes the researcher as a person  
Our collaboration, as previously discussed, is an important aspect of the research, including us as researchers and people within the research. In doing this we have also attempted to develop special relationships with our participants linking in the next theme
- 6 Feminist research frequently attempts to develop special relations with the people studied (in interactive research). Finally
- 7 Feminist research frequently defines a special relationship with the reader  
Our personal and interactive approach to writing is an essential part of our thesis, particularly when integrating our experience as collaborative researchers.

#### ETHICAL CONSIDERATIONS

Our feminist methodology, with its openness and honesty, is an essential part of the research. Ethically, it is the basis for the research. This methodology, has also assisted in highlighting ethical components of respect, justice, truth and freedom cited by Clarke (1997). As Clarke states, it is important to

*'Recognise the human dignity of participants by treating them as ends in themselves and not merely as means to researcher' ends' (ibid:160).*

In approaching participants we stated our background and reasons for the research, in order to clarify our position. We emphasised the importance of confidentiality, honesty, informed consent<sup>3</sup> and the right to withdraw from the process at any time up to the printing of the thesis. We explained our intention to honour their stories by providing as accurate an account as possible. Our aim was to provide, a culturally safe and appropriate environment, respecting the participants' choice to make boundaries about their shared information, and building a rapport with participants. Our commitment to appropriate storage and/or destruction of records after the completion of the research was also discussed.

We believed that to get the best possible results it was vital to work in a women's way using a women's culture<sup>4</sup> as a foundation, i.e. doing equity and living it, is our philosophy. We needed both to reflect our values and beliefs and to provide a safe, authentic, women-centred environment in which to carry out the research. As educators, we were also working in a male-dominated environment in which, when we looked beyond the 'political correctness', we and/or our philosophies did not 'belong'. We had to constantly validate who we were and our reasons for doing the research. We decided to work collaboratively. This gave us, and the women participants safety, protection and strength. We built up trust with each other and with the women participants. We were open about our values and philosophies, which meant that we could relate to the women well. They wanted their stories told.

## THE RESEARCH PROCESS

In 1997-1998 we began the research process. Our research questions, which were reviewed as the thesis developed, were at this stage

- What is women's experience in trades education - did it match anecdotal evidence?

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<sup>3</sup> See Appendix 12 and 13 for research consent forms. More details about research participants can be found in Appendix 8.

<sup>4</sup> We define 'women's culture' later.

- How had women's experiences in trades education improved over the past 20 years?
- What change occurred in the number of women in trades education?
- What type of learning environment is provided in Aotearoa/New Zealand for women in trades education?

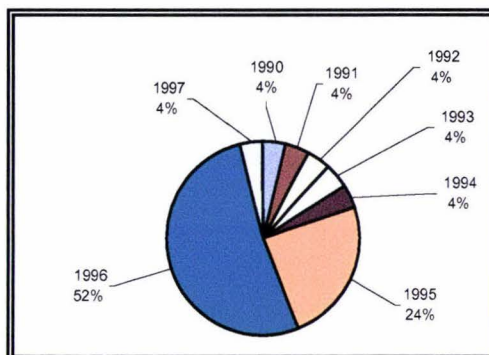
We identified a list of relevant courses which fitted the definition of male-dominated trades education. Using our work and private networks, we developed a list of student contacts from a number of polytechnics within Aotearoa/New Zealand.

The semi-formal interview process was considered most appropriate, as it allowed us as researchers to follow up leads, probe responses and investigate motives and feelings where relevant. The interviews were conducted on campus, in the work environment, and at home with interviewees. During the face-to-face interviews, one of us acted as interviewer, the other as recorder. The interviews were, with the agreement of the participant, tape-recorded for further reference.

We developed two interview guides, one for students and another for tutors. We also used the student interview guide as a questionnaire (see Appendix 6 and 7). After identifying the potential participants, and carrying out a pilot of the questionnaire, data gathering began. Letters of introduction (see Appendix 5) were sent to 69 contacts. Questionnaires were also mailed out to participants who were unable to be interviewed, either because of time constraints, or geographical location. This enabled faster processing and ensured as wide as possible a sample of students' feedback was obtained.

The diagram below shows the last year of study for the students interviewed. It should be noted that many of the students had studied for trade qualifications over a number of years.

## Percentage of Students Interviewed, by Year of Study



In our research approach, and using our feminist methodology, we carried out face-to-face interviews for 11 of the 23 respondents, working and/or studying in male-dominated trades. The other 13 women responded to the questionnaire. We obtained most in-depth data from the face-to-face interviews. Ten tutors from male-dominated trades areas were also interviewed.

Our research focuses on women in 'male dominated' trades. Women were identified in courses targeted as those having less than 25% female representation. We followed the guidelines from *Equitable Learning Opportunities for Women in Polytechnics: An Affirmative Action Resource* (Dept Ed 1998: 57) which states, "As a general rule of thumb, any course which does not have at least 25% women students is non traditional for women".<sup>5</sup>

One of the limitations of the research was the small number of women in male-dominated trades education. Because of privacy considerations it was difficult to use 'official' channels to gain access to these women. This made us more reliant on networks. Women who had left courses at early stages were not necessarily 'remembered' by our networks. We believe that these women could be under-represented in the research.

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<sup>5</sup> Initially we identified the research as women in non-traditional trades education. We did this to differentiate women from 'traditional' trades areas eg hairdressing from those in 'male dominated' trades. However, as the research progressed we recognized that the use of this terminology has the effect of excluding women. We therefore use 'women in male dominated trades' as our reference point.

On reflection, we think, that designing the questionnaire to align with the interview guide made it less useful in obtaining detailed data from written responses. A more specific and detailed questionnaire may have resulted in more in-depth data.

Personal information such as age, culture, sexuality was not openly asked for, although this was sometimes identified in the face-to-face interviews.

The lack of identification of culture did not enable us to investigate a bi-cultural/multicultural perspective. Although we had not intended to do this, if it had been gathered we would have worked with a team of culturally appropriate researchers e.g. Maori women to interview Maori women participants.

Themes in this research were identified using the interview transcriptions and entering data onto an Excel spreadsheet under question headings, so that they could be cross-referenced. Data was then colour coded, which made it easier to identify similarities and differences in participants' experiences.

At the end of 1998 we hit a 'brick wall'. Perhaps we got burned out. Our idea was to get more women into trades education – but how could we do that with integrity? While there were some positive experiences, we found that women were still working and studying within a culture that upheld discrimination on a daily basis. We discovered that although women themselves were consistently courageous and determined, some of their experiences were horrendous. We no longer wanted to encourage women into this area while the present situation existed.

In 1999 we began to revisit the research and transcribe the tapes. With the help and support of three key advisors - two of whom work in trades areas, the third key advisor, works in education and encouraged us to keep the soul in this thesis – we decided that the stories of women in trades education needed to be told. The thesis provides a significant, meaningful account of women's experiences, not only in trades education but also in the Aotearoa/New Zealand tertiary education sector.

## THE THESIS AS IT IS TODAY

During the process of revisiting this research we began to tighten the research questions and widen our perspective to linking women in trades education to educational organisations as a whole. We refocused the research questions in the following way:

- 1 Male-dominated trades education:
  - What changes, if any, have occurred in women's experience in trades education, since the 1980s?
  - How positive is the learning environment for women in Aotearoa/New Zealand polytechnics ?
  - Do barriers to women's access, participation and success in trades education still exist, and if they do, what are they?
  - How does male-dominated trades culture, gender, sexuality and power influence the experiences of women in trades education?
  
- 2 In tertiary education:
  - How does 'male' culture, gender, sexuality and power influence the positions of women in tertiary education generally?
  
- 3 In collaborative research:
  - How does our collaborative process work?
  - What are the advantages/disadvantages of collaborative research at postgraduate level?

The overall aim of the thesis is three fold: firstly, to explore women's experiences in tertiary education within a context of women, power, gender, sexuality and culture, with specific reference to women in male-dominated trades education; secondly, to present and analyse the data from the women's interviews and stories; and thirdly, to build on and explore further the process of collaborative research methodology that we have developed and used over the past five years.

The first part of the thesis is focused on women in male-dominated trades education, and is presented in two different ways. Firstly, we present women's stories in narrative

form in an attempt to maintain the integrity of the women's experiences and allow the women to tell their own stories. Secondly, we form themes and thread these through the data analysis. The research reveals negative, positive and neutral experiences, all producing interesting contradictions and complexities that provide insights into the position of women in the trades education environment.

The second part of the thesis looks at women's position in tertiary educational culture in the light of trades education research. We look at women in educational organisations, the implications of gender and sexuality and power relations embedded in male-dominated educational organisational cultures, and how this relates to our findings. Filters of gender, sexuality and power are used to develop an explanation for the experiences of women. This enables us to develop threads through the thesis and to attempt an explanation of the complex tapestry of women's experience in tertiary education.

In the third part of the thesis we explore the development of our own collaborative practice in more depth. We have developed a collaborative method and relationship that has challenged us along the research journey and enhanced the integrity and reliability of our work. For us, this means equitable practice, shared power, elimination of gender cultural conflict, and a demonstration of the many benefits of women working together to explore institutional bias towards women in the tertiary education system. In questioning ourselves and each other within this collaborative project, in validating processes, reducing bias, in sharing, supporting, motivating and valuing each other's knowledge, wisdom, experience, values and beliefs, we believe we are exploring experiential learning at its very best.

We begin this journey with stories from three of the women participants. These stories speak the women's truth and highlight some of the issues. As one of our key advisors recommends, in order to understand the essence of the stories you, the reader, must divest yourselves of the cloaks of academia and approach the writing with not only your head but your inner self (Gully, 2000). The journey begins.



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*Chapter 2*

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**WOMEN'S JOURNEYS IN TRADES EDUCATION**

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## NARRATIVES

In spite of the barriers and discouragement that women encountered as a result of deciding on a career in trades, women followed their passion and became pioneers in their study and work areas.

We felt privileged to be able to work with these women in our research. The stories they tell are sometimes deep, very personal and powerful. We have found the best way to present this depth of data is to select three women's stories and present them in a narrative form. This enables the women to speak for themselves and is representative of the issues in trades education.

We also consider that an overall framework is an essential foundation for these stories to hold their meaning for the reader. A large and important part of this foundation involves the experiences of the other women participants and some of the tutors who work with them. We have aimed to highlight a wide range of responses in order to give a full and varied picture of the data collected.



## **Maria's Story**

They'd just argue. It would become an argument. It was like me [against] eight blokes who all agreed with each other, then I'd be in this horrible position where I felt I didn't belong there. I had to work there, it was just this horrible, alienating, isolating ....

I'm trying to remember specific incidences. I don't know if they were carrying it on but the thing is I would withdraw. [The boss] was very aware of the need that everyone had to work together, he would try to dissipate that sort of stuff, he knew that you can't have that on a site. ... I just learnt that I couldn't engage with it any more. I would just have to not react or something, to survive. I couldn't hear stuff like that and not have a reaction to it. ....

I remember an incident once when I was working somewhere in another room, and some of the builders were making comments about queers, dykes, sort of homophobic stuff. You know, they were making comments about the gay fair days. They've got this huge huge thing in \*\*\*\*\*, part of the Mardi Gras festival, it's massive, and someone was talking about all the freaks walking....

*The scary thing was that until that moment,  
while I was on site I just felt like I was  
another worker.*

I was there just doing my tiling and I heard this thing in the other room and I suddenly became aware of who I was in a different way and it was like it was so bizarre. I don't go round thinking I'm a woman or I'm a dyke or I'm working class, or whatever, I'm just there. I'm a tiler and I just became so aware of another one of those differences and it was horrible, it was really horrible.

It is very much an aspect of physical danger, because they were all in this room and they were all men and they were all talking about these 'freaks'. That's the weird thing, 'cause what it did to me was 'Oh they know I'm a dyke', or do they know'. I knew they knew. Whereas the minute before that I was just Maria tiling the bathroom. I don't know, it was quite weird.

## *It's like having all these psychic splits*

### *all the time.*

It's like, all you want to do is be better at your job, like everyone else doing their job, and suddenly it's like you have this psychic disjoint and you are really conscious of something else ... belonging or fitting in there. So often it was like the working class thing, like I had some level of identification with the other men who were working there . . . I've looked for connections, but always it's like that thing of never fitting anywhere. It's like, well, I'm working class but when they make homophobic or misogynist comments, then it's like I'm not like them.....



I didn't come out as a dyke until I was about 23. At work, [my partner], she's not identifiable as a dyke and she passes. Like, they yell out stuff [to me] .... she notices that she doesn't get that on the street, so that was less stressful for her. Whereas if her and I are walking along the street, we get stuff directed at us but it's usually directed at me, not her. If we're together. But I don't know what relevance that has ... She's fuckable, she's sexually available. [They go for me] because I've got her. The hassle directed at her, on her own, is a sexually predatory one, it's still physically violent but its sexually predatory. The one directed at me is physically violent. It's not sexual, it's about physical violence. I'm not sexually available to them, I'm not perceived as that, so it's kind of like [I have] transgressed. It can never be out of your head.

I can feel safe in a few places. Like, I can feel safe with [my partner] I can feel safe with a few friends in \*\*\*\*\*. maybe, and maybe around \*\*\*\*\*, even though I don't know her that well. I can name who I feel safe with and all the rest of the time I'm aware that I'm an alien.

I feel some level of difference, whether it's class, whether it's in sexuality, whether it's in gender, whatever, in every cell of my being. And it's always there. The difference of being with someone like [my partner] is she understands it and I don't feel betrayed by her. I mean everywhere else I sort of feel some level of unsafety, I think. It's really

hard, 'cause you are scared and because they are in packs. There is always more of them, there is always five or six of them. They never do it when there is two of them.





I was working better than a five-year tradesman and yet there'd be a mistake on a job and I'd get blamed for it and it was my boss who'd made the mistake. They were making thousands off my back 'cause there was a huge boom. It was really specialised tiling that I was doing. I worked for two weeks for free, they offered me a job 'cause I was really good at it. I was getting paid a bloody pittance.

I picked tiling 'cause I didn't want to go into an engineering workshop, even though I would have loved to do engineering. I loved engineering, I've just always been fascinated by it, I've always wanted to do it and, like, I've always ridden motor bikes and twiddled with engines and shit ever since I was about fifteen. I love mechanics and I love engineering and I always wanted to sort of modify my bikes and do stuff to them. Blokes always have mates, they always have a mate. And I didn't have that and I hated it 'cause I knew

*I had all these ideas and I didn't have the access  
to stuff to do anything.*

So that's why I always wanted to learn engineering. But it just, I don't know, there was something about the idea of being stuck in an engineering workshop, blokes, just a closed in workshop with heaps of men. I just couldn't. At least with the tiling and that you're out and you're in different places all the time and, I don't know, it just didn't seem that it would be quite so claustrophobic. But it really was something I wished I could do, cause it's just such a fantastic skill to have, you know.

I did really well [at the course]. These  old blokes, the tutors I mean, you could tell they were really impressed.  It was the first time the women on the course got a chance to have a go at any of this. You could tell, the tutors were just blown away by what these women could do if they were given a bloody chance.

When I was doing the horticulture and gardening, when you had smoko, like, we all went to the smoko shed and often it was a tiny little shed like at the gardens up at \*\*\*\* and

*the blokes would all sit round and either play cards  
or read Penthouse and Playboy*

and, yeah, and that's what they did when I was there. So that's what you do. You either do that, you either play cards with everyone, which is what I did, or you sit and read bloody *Penthouse* or something.

It's a long time ago. I was eighteen, so it was twenty-four years ago. They had had women apprentices then for at least fifteen years. It wasn't a new thing even then. They had always had women apprentices, but the thing was, like, there weren't any women in [management] you know, it's really hierarchical. Even though they had women there for years and years and years none of the women were in any of the good, well paid positions. Often they did really well, 'cause you studied as well as your practical work. I was really aware of that and, like, I was doing really well with my studies, I was strong, I worked hard, you know. But every time there was a promotion, like, there'd be a gap, they'd give it to some bloke who'd been digging bloody holes for six months, you know, they'd offer it to him before they'd offer it to anyone. I saw that, and I wanted to go on and do an MBH, which was a national [thing], it was like doing a thesis. It was six years study and it's internationally recognised.

They didn't reward someone who was passionate about what they were doing, or interested in working hard. That's what I saw day after day, they offered jobs to some bloody moron who'd just kind of walked in there on the holidays or something, you know. So what's the point in staying in there? [I got] totally discouraged, it was awful, cause I loved gardening.



At school I was the only working class kid there. I didn't understand class or anything then, really. That was when my father had left. My mother was really struggling bringing three kids up on her own and I was completely different to everyone else

because I was wearing a uniform that was about forty years old and blouses that were forty years old, my shoes were like nothing and I knew I was, you know that age, I mean it's fucking horrible. I met these working class English women when I was twenty-three and it was really kind of an influential time and they were really politicised and they were all working class. They said to me 'What class do you think you are'? I thought and thought and thought, I'd never thought about it. I said 'Oh I must be middle class' and she said 'Why?'. It was because there were people poorer than us, so I thought I must be middle class. [Being outside the group] I started getting into trouble right from the start. I had the school record for conduct sheets! I was pulled up every day at assembly and I finally got expelled about three years later. I still managed to do really well academically despite all of that, and despite never being in class, and I think that really shitted them. I didn't think I had the right to go to university. No one in my family had ever been to university. I went to university when I was thirty something.



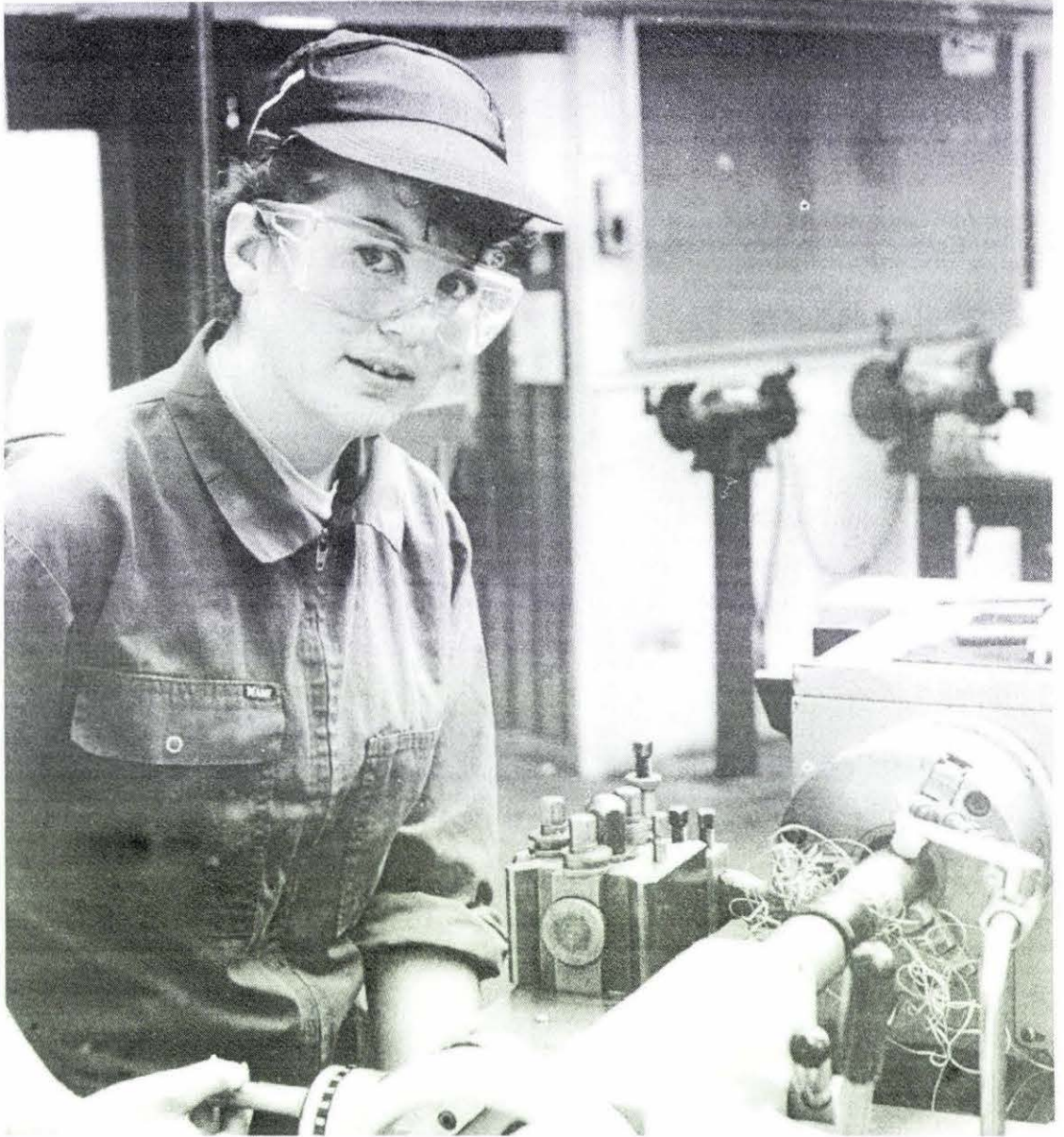
I don't know what [the customer] saw or thought the first time they met me, a woman tiler. When I went into houses to women, like, it's often a woman who employs and I think women loved it because I told them exactly what I was going to do, what I, how I did it ... that whole thing of blokes coming in and mystifying everything they do and ripping you off and stuff like that.

*I think women trusted me*

and I was always really aware to explain what I was doing and stuff like that. So if I was dealing with an individual home owner ...some jobs I didn't get because I was a woman, and I could tell.

Especially, if I was dealing with a bloke. It was the questions they asked me. And I know they wouldn't ask a male tradesman that stuff, they just wouldn't. It was so offensive. I had to turn down lots of work, I was getting so much work and it was by word of mouth and that's because people recommended me. Maybe every tradesman has to prove themselves to a builder, maybe that wasn't something specific just to me. I mean, I think they would be the same with their sparkies and their plumbers and whatever, too.

Yes. The one thing I guess in my favour in that way was tilers are so rare. There are so few tilers.



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<sup>6</sup> Sharon Paterson, taken from *Women with Vision* produced by The Waikato Polytechnic, no date

## **Helen's Story**

I took over in August '95 as the manager. I've been with this company for nine years. I started here as a process worker. My job consisted of drilling hundreds of holes a day and the Managing Director saw potential in me to become a tradesperson, so I undertook my apprenticeship. I served my time and then just basically became one of the workers out there with the rest of them. Then I became the understudy to the factory manager and took over the position of workshop charge hand. And so I progressed from there. The factory manager left us last year and I got the opportunity to take over his position and I've been doing it ever since.

I did a mechanical engineering apprenticeship as an adult apprentice. I've done a couple of welding courses. I got to know the tutors over the period of my apprenticeship. They are very helpful. They were willing to just go that extra five minutes and spend a bit of time with you, especially a New Zealand Welding Ticket. It's a qualification that you've got to work hard to get and it can be worth a lot to you in the long run if you can keep them updated. For me, it was a lot easier to do block courses. It doesn't disrupt the workflow here.



The stress level, I've noticed with the different types of jobs the stress level can be very demanding. Part of my job description is to not just do my job as a factory manager but also to spend time out on the floor.

*If the guys need a hand I don a pair of overalls  
and get out there*

and do it. I'm still a ticketed welder. In fact I'm the only ticketed welder here. We do a lot of work for \*\*\*\*, so that's got to be done by a certified welder, so I get in amongst it. I try to juggle, and if it means I'm taking work home then I take work home. It's just part and parcel of the job.

I have only ever met two other women who were involved in a male-dominated trade and a woman doing an automotive engineering course. She got a job offer that she couldn't refuse as a sales rep, but she was involved in that trade. So I'm afraid it's the dollar sign now that determines what it is people do for a living. It's very hard

It was very hard for the girls I went to school with to get into the metalwork classes and, you know, we all did woodwork, I think for the first term of our third form year. It was compulsory, but then we could take woodwork but we couldn't take metal-work. So it was either cooking or woodwork. That was the two choices you had.

My father was actually an engineer with \*\*\*\*\*. He was a backyard mechanic and when he was out fixing relatives' cars I was in amongst it, watching and seeing what he was doing while my kid brother was off playing games with his friends. That was where the interest came in. I always wanted to be a mechanic. But when I looked at doing an apprenticeship, you had to have School C maths and English, I think it was, at the time, and I left secondary school the day I turned 15. You know, it was like 'I'm out of here'. I must admit when I started doing my adult apprenticeship it was a real regret I had that I didn't stay at college. 'Cause I did find it hard going back into the classroom and dealing with the subjects that I had to deal with. The calculations, which was maths. I mean, I've always been pretty good with numbers but, you know, when you walk into a class and the tutor goes 'Today we are going to deal with moments of force', I mean, it was totally blank to me, it meant nothing. But I studied hard and the Managing Director here gave me a lot of tutoring after hours to help me through it and I stuck with it.



I will remember my first day on my first block course until I'm old and grey and I've got grandchildren. I turned up at polytech and I sort of knew where I had to go and I got there really early and I was real excited and it was my first day. I went and had a cup of coffee and made sure that I had everything I needed, and I went up to the class and I walked in and introduced myself to the tutor who was there. And there were half a dozen guys already in the class. So I went and sat down the back. I was pretty inconspicuous and everyone had arrived by this time and the tutor was going through his spiel and introducing us to the things we should know. And he turned around and said 'Look, before I take you on a tour of the campus the first thing we should do is get

the roll out of the way. So that's alright, and he's going through the roll of everyone who should be in class and it was in alphabetical order. And you hear him going 'Mr \*\*\*', and this guy on the other side goes 'Yeah', 'Mr \*\*\*' and this guy on the end said 'Here', 'Miss \*\*\*\*', I went 'Here', and every single guy in the class turned round, like, 'Who the hell said that?' you know, 'Where did it come from?'. And there was this voice in the background. It was the typical, you know,

*I felt like a leper for the first week.*

The first week was really hard. I'd go home at night and sit there and think 'Why am I doing this? Why am I putting myself through this? What is the point?'. I was in the last intake of the old system, and I went through my first three weeks of the block course really contemplating why I would really want to do this.

But it was something that I enjoyed doing, so I stuck with it. And at the end of my first year I sort of thought 'Well, I made it through that year'. The guys on my first year were hard, they were really hard. You know, they were young snotty nosed teenagers. I was the oldest in the class. I was 23 when I started my apprenticeship and most of the apprentices going through at the time were around the 18 to 19-year-old mark. So I was the oldest, but I managed to make a few friends out of the guys that were in my class. They realised that regardless of my gender I knew what I was doing, I was capable of doing it, and they was willing to give me a fair go. They were still boys. There was that element of racking up the tutor, seeing if they could get away with it, and I just used to sit there and think 'If you're not interested in this, why bother coming?'. But in my second year I studied real hard and I was top of the class in academics, in a class of me and fifteen guys. For me that was a real buzz. It was like, 'Ha ha, I can do it'.



I have a very high standard of quality for the work that I put out. I think women are more particular about anything. Like you never hear of a woman making half a cake. It's either the whole cake or its nothing. And I find that working with guys, too, it's like, 'Oh no, it will be alright like that'. But that's not me, it's like 'No, it's not right, it can be better', sort of thing. I can see why women who go into a trade that is normally a male-dominated trade can become top of the class or excel at what they do, because they try a lot harder. They say, 'Well hey, listen, I'm a ... fitter.

*It's a man's world, but I'm going to  
do the best*

*I can.*

[I only feel I have to prove myself] when I have to work with arrogant males on site. I've been doing work on the museum in town, and the minute a man sees a woman on a construction site, it's like 'Oh yeah, what does she do?'. But I actually met a woman who is a carpenter and she said 'Oh, you get used to it'. And I said to her one day, 'I don't think I will ever get used to it'. You know, I think it will be a long time before women are accepted for the fact that they can do what they are employed to do.

I think there is always going to be that sideways glance from males. I had a gentleman when I first started as an apprentice, he was a tradesman, and him and I didn't see eye to eye. As far as he was concerned, women should be in the home pregnant, bare foot and in the kitchen. And this is a gentleman that I was supposed to learn from as a tradesperson. Their job is to teach an up-and-coming apprentice. In the end I had to say to him 'Look, if you aren't going to teach me, fine, leave me alone and let me find someone who will teach me'. Oh [I had to be] very, very assertive, especially if it's all new, you've got to be assertive or else they will walk all over you.

I feel the tutors at the polytech in particular are very accepting of having a female in their class. I mean, I was treated just like one of the other students. I don't think I even got any favouritism from any of my tutors. I think I got on better with my tutors than a lot of the guys. I think purely because of my age. Because I was older.

\*\*\*\* was actually the course supervisor when I was doing my apprenticeship and he gave me a very good letter of recommendation to New Zealand Business and Professional Women's Association as a nominee for Female Apprentice of the Year, which I won, which I got. In his letter of nomination he said that I had a mature attitude. I wasn't going to let what was happening around me affect my performance as an apprentice. Just the typical young boy syndrome of playing up and just seeing how far they could go and how cheeky they could get and how far they could push a tutor. They

were being paid to be there, so they thought ‘Ah, the boss is paying me, why should I bother’. But again, I think it is the age thing. It’s just the maturity or lack of maturity.



I left school at 15. I lied about my age so I could get a job. It was just factory jobs. When I got this apprenticeship, it was like, ‘Oh, cool, finally I’m involved in something I want to do, or close to it. My family, in particular, was over the moon. Especially when I got my apprenticeship. My father was involved in that particular area, it was like ‘Oh, you’re just like your father’. My friends were very supportive.

The male friends that I had, or have, it’s like ‘What do you do for a living Helen?’. ‘Oh. I’m an apprentice fitter welder.’ ‘Really?’. ‘Yeah.’ ‘Oh, that’s pretty good.’ I think I was lucky in that aspect.

*No one ever said, ‘Oh, you’ll never make it’,*

*you are out of your league,’ sort of thing.*

At polytech I had one guy, we were in a workshop practical class and we were doing lathe work and were thread turning, and this guy stood on the other side of the machine with his arms folded, watching me like a hawk. I was all set to go. Just as I was about to turn it on, he stopped and leant right over it and he said, ‘Well, you have restored my faith in the female sex’ and I said ‘Why is that?’. And he said ‘You do know what you are doing’. And I said ‘Yes I do, give me a break’. We became really good friends and if any of the guys said anything he would stick up for me. He didn’t need to, because I am quite capable of sticking up for myself, but it was nice to have someone say ‘Hey, listen, she knows what she’s doing, she’s OK’.

There was still that feeling that I have to study that extra hour every night. I have to read that extra paragraph in a book. There was always that feeling of knowing that if you didn’t succeed then there would be someone there to say he knew you couldn’t do it. Not because I wasn’t a good student, but there’d be that

*‘Women are not cut out to do this’.*

There was always that fear, for sure. But I intended to prove them wrong. And I think I did, in the end. It made me more determined. I'm much more determined to succeed. It also helped because I was doing something I really enjoyed doing. That was the other thing.

*It was a love. It was like my first love.*

But I got to a point in my second year where I wondered if it was all worth it. I think it was a lack of confidence on my part. It was 'Have I got it in me to succeed at this?'. It's a sort of inner feeling that I had. But you know, I had all these people around me, like my family, my friends, the guy I worked for, even my workmates, and I work with all guys. We've only ever had two other females here and they were process workers. The guys I was working with and doing apprenticeships with at the same time were saying 'You can do it, you can do it'. And to have them turn around and ask me 'Hey, how do you do this?'. That made it. That was enough. That was enough to keep me involved in it.

Academically, that was a big plus for me. When the tutor announced that top of the class in academics was Helen. But I had guys in the class who cheered. They were really happy for me. It was really good.



Me and cultures don't get on. No, that's not true. My mother is half Samoan and half Chinese, my father was New Zealand born but his parents were Swedish and British. So there is a real mixture in there somewhere. I remember filling out an enrolment form and one question was 'What ethnic group do you belong to?'. I picked Samoan. I got a letter in the mail inviting me to attend a seminar as a Pacific Island student and I blew my stack. See, back then this cultural awareness thing wasn't a big issue.

Being politically correct wasn't a big issue. I remember taking over this job and I think one of the boys said 'Oh, we've got a new factory foreman'. And \*\*\*\*, the Managing Director, said 'No, you've got a factory foreperson now'. To make it easier on the guys they changed it to factory supervisor and then I took over the factory manager's side. That was even easier for the boys. Most of the guys just said 'Hey boss', so it's pretty

cool. So yes, there wasn't this politically correct stuff and this cultural awareness that we have now. You have to be very, very careful about what you say and who you say it to.



Oh, the boys would argue. I got involved in a fight in the foyer with two of the young boys in my class. One of them was a real hothead, a real hothead. Couldn't be told anything. And one of the boys said something to him about literally just pulling his head in, so he had a go. I've done martial arts for five years and a fight doesn't bother me. I remember stepping in between them and I just said 'Look, go and calm down, it's not worth it. You'll get thrown off the course. If that's what you want, keep going. It's not worth it'. I think I played a bit of a calming influence too. [The tutor] commented on that, too. He noticed it when we were in class. I was quite happy to turn round and tell some guy to 'Shut up, 'cause I want to hear this. I'm interested in this. If you don't want to hear this, get outside'. I think it made a lot of them realise we are there to be educated.

Timetabling of the course was not a problem. I have a son, he lives with his dad. His father and I are divorced and he lives with his father and visits me every fortnight for a weekend. I was really lucky in that aspect.

## *Knowing one end of a spanner*

*from another helped.*

I had prior knowledge. I picked up an arc welder, I think I was eight. My father had one and I was eight years old. So I knew what it did. I didn't know how it worked, but I knew what it did. I knew what it was for. And just your basic hand tools, I knew what they were for.

A tailor was measuring me up for this jacket and he measured across the back of my shoulders and he turned around and he said to me, 'Do you have a lot of problems finding women's shirts to wear?'. And I said 'Yep, I can't find one'. I said, 'How did you know that?'. And he goes, 'Because you have got the broadest shoulders I have ever seen on a female. What do you do, swim?'. And I said, 'No, I'm an engineer'. I can remember when I first started here. I went home that night going, 'Oh, God, my hands

are so sore', because they were soft, they really were. But after nine years of lugging steel around and

*women not being strong enough,  
physically strong enough, to me  
it's a fallacy.*

If I can't lift it, there's a crane that can. If I can't lift it, I've got half a dozen guys that I can ask. It's common sense. The Occupational Safety and Health put out about how to lift and what not to lift. I remember we were reading through it with the guy I work with. It actually had recommended in this that women should not lift any more than 20 kilograms. And I says to him, 'If I can lift it, I'll lift it, if I can't lift it, I won't'. It's common sense.



If I had been a male, it would have been part and parcel of the job. Because I was a female, they were very protective for the first couple of months. But in the end the boss came down and the truck comes in and he goes [snaps her fingers] 'You've just been made an honorary guy, away you go'. There was always that protective thing, because you are a female. But see, I find myself doing it now. We used to have a young girl who worked here for us and she was a process worker and we used to have big cartons with tacks and things like that in it. And she'd go upstairs to the mezzanine floor to go and bring one down and I'd find myself racing up there to give her a hand, 'cause I knew what it was like. It was like, all the guys would stand there watching to see if she could do it. Do I think women have to be strong enough physically to do it? No, I don't believe that.

I can remember some saying to me, 'But that's not normal'. Define normal. Why can't I be an engineer? Why can't a woman be an astronaut, why can't a woman fly jet aircraft? The physical attributes of a female, just the general makeup of the female body, shouldn't stop them from doing something that a man can do. Academically, why should it be any different? A female apprentice in a male-dominated trade should be given the same opportunities that a male apprentice would be given. They shouldn't be treated with kid gloves



I would say, regardless of what it is you attempt in life, give it 100% and don't not do it because someone doesn't think you can.

I'm a great believer in the equal opportunity issue. Whether it be equal pay or whatever. Equality to me is a big thing. Being treated as an equal regardless of my gender, especially in a male-dominated trade like I'm in. Being treated as an equal is enough for me. If they treat me mentally as an equal and don't see me as an object where I'm in this to just prove that I can do this trade. I've proved to myself that I can do it.

The respect is a big issue with me. I'm a section manager in charge of males. I know it was hard for a couple of them to accept. There aren't many factory managers around in \*\*\*\*that are female in charge of all guys. So I can understand that it would be very hard for them to accept that. But they've got to understand that I've worked bloody hard to get where I am.



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<sup>7</sup>Photograph by Lauren Nation Plimmer

## **Kate's Story**

I think quite seriously, after my experience at polytech, I no longer felt that this is the area that I wanted to be in. I did not want to go and work with people that they teach in garages, the majority, I just thought 'I am not going to put up with this'. I would have loved to have gone out and actually done another two years and finished within a garage. I would have had to continue going back to \*\*\*\*\*, but I was disillusioned, I felt like it was a struggle all the way, every time just getting there was a struggle. So I just basically threw it away, as a result of polytech really. I believe that if it was a really supportive environment for me, if I had really positive role models, if I had women lecturers, if I had individual support, if I had support on site, if I knew I was going to work on site at a garage, that if I knew that there was a woman I could perhaps work with or who came to visit me every now and then, once a week or whatever, even that would have been like, 'Mm, maybe I could do this'.

[The positive was] in the end they employed me to teach the women students coming through because they knew that this was an area that women failed in. I had an understanding on both sides, tutor and students. I thought [it] was great. They had women teaching the heavy trade codes as well as men engineers. It felt really good. It was excellent. So from there I mucked around for a couple of years but I think that engineering was something that I definitely felt I would be good at.

I have always just played with things. Like, I've always played with cars. The other thing, too, is being sick of being ripped off. You take a car into a garage and you are pretty sure that it's just a small thing, not 100% sure, but you're pretty sure. Then you come out with a \$300 bill and get really annoyed at that, but not having any experience or proof. So really, I just wanted experience to be able to fix my own car or if I had to take it to a garage I knew I wasn't going to get ripped off.

I didn't really see it as a career. I was only about 21 when I did the Heavy Transport [driving course] and I just felt like they were good skills to have. But when I was 21, I didn't think 'Well, this is where I want to go'. But when I started at \*\*\*\*\*, I don't even know how I found out about it or why. Then I thought, 'This could be a career. I could

do something of my own, I could always work by myself, I didn't have to work with a garage'.

So I always saw myself as doing my own thing,

*running my own business.*

I didn't really know how realistic it was. I remember talking to a friend at the time and saying to her, [that] she could do all the administration stuff, 'cause she was like a manager and had done business studies. We could have a really small garage and could work for yourself and it didn't necessarily have to be money motivated as long as we covered our costs and drew some wages, then that would be it. That was the goal. I think as time went by at polytech I just knew that that wasn't going to be realistic, but it could have been.



[As a student on the women's course] it was brilliant. Way beyond [what I expected]. I did six months full time in a home maintenance course for women and we had women tutors, women administrators, women managers and women on the course. I just can't speak highly enough about it. It was just brilliant. Really different way of teaching. The woman was a carpenter, she was a qualified carpenter. Just a really different way of giving information out. Very patient, like as women students we had really different needs from men.

I believe in terms of

*male tutors, they can be quite*

*aggressive*

in terms of how they, especially in engineering, the way they get their information across. The way they talk about their tools even. The way that they talk about male and female parts of the tools and just absolutely everything. In actual fact, in the engineering business or plumbing or any of those sorts of trades, parts are referred to as male or female, but it's just how it's used. The jokes that can be made off it. How big the hole is, you know it just gets . . .

[It made me feel] just crap and because there is only one of me, well, how do you fight the ten students who have just been affirmed by the teacher that this behaviour is actually OK, and the teacher saying 'Well, yes, this behaviour is OK' and me saying 'Well, it isn't'. For me, the first three months were a battle, absolute battle, and just, like, coming home in tears and just thinking 'Fuck this'. It just wasn't worth it. But in the end I realised that I've just got to get what I want out of it and not give them any energy. So just basically putting up with homophobic, sexist, racist – my god, the racism at polytech was incredible. And of course that eats away at my self-esteem. I'm aware of oppressions and aware of, like, when somebody is being taken advantage of, and if I don't say something I feel like my self esteem just starts dwindling away.

[I felt silenced] absolutely, yes, silenced. I can deal with one-on-one stuff. Like, if there's a class member and we are working together and he says something I can sort of articulate it and deal with it, even though he probably hasn't learnt a damn thing and knows he's got the support of everybody else. But its like, I remember there's one particular tutor and at that time all the fisheries stuff was going on and Tipene O'Regan was on TV a lot and stuff like that and there were lots of Maori people in the class and he just absolutely said some incredible things. I remember one of them was that they couldn't quite pronounce this guy's name. His name was Wiremu and so he would go "Look, I'll have to call you Wee 'cause your name's too bloody hard". So I would call this tutor Karen instead of \*\*\*, 'cause I said it was too hard to pronounce \*\*\*, so 'Karen, can you do this, and this, and this'. But the whole time there's ten guys that have been taught by this tutor that that behaviour is absolutely fine. To be sexist is absolutely fine and to have racist comments is absolutely fine and homophobic comments, I mean they were just rampant, and they were really difficult to deal with, because I mean at that time there was no legislation that we could pick up anyway. So those just went by the by.



To come out as a lesbian would have been incredibly difficult. A lot of them knew in the end but it wasn't a safe environment, that's for sure. And the comments were awful. The first stage there were three of us. There was a young woman who was about 17, straight out of school, I think, and she was just absolutely trampled on. I mean, I was a mature student, so I could deal with certain things. I feel like if you were young, didn't

have any self, well not self-esteem, but she had no way of fighting back. She obviously didn't feel strong enough to fight back about these comments. It was never really talked about. Like we never ever got together and said like, this is crap. I was aware of what was happening and the 17-year-old had never experienced, never been out, never been in the workforce or trained for anything specific. Had never done anything like engineering.

At school we always did the cooking and the sewing and that was the other thing that we really lacked. Because a lot of these guys had done lathe work built their own toolboxes in the sixth form or even in the third and fourth form, and we had never ever experienced that. I remember going in to the very first workshop. We had to make this tool off this lathe and I'd never seen this piece of machinery before in my life. I was terrified of it as well. Like, I was absolutely terrified of it. And I remember the other woman, she had never ever seen one, but these guys could get on to it, put their masks on, have very little tuition about it and they knew what they were doing. So immediately we were behind, and immediately we're told that we're dumb, not that, we were told we were behind and we had to make the time up. And we just got stressed and made mistakes and your work suffers.



I feel it would be great to have an [extra] hour, that we had more time to work on it [practical] and [male students] can go off and do theory or something. Because that was another thing,

*women were really good at the theory.*

We were really, really good at the theory and we'd go home and work and study, especially the mature students. Like we were there for a purpose, the 17-year-old guys were just there to mess around and stuff like that.

No, I don't believe that women had equal time. I'm thinking of this one particular one, we had about eight different tutors. But this one particular tutor, no, I wasn't assertive and grabbed him and said 'Oh, come and help me', that just wouldn't have happened. And I think you've got to be in a good place before you can even get there. She didn't

know that you could do that. There was another mature student there, a woman and she was really good too, she was really assertive and made sure that she got the time from him. But he wouldn't give up the time, we would really have to force him to spend time with us.



I got on with a couple of Maori guys and mature students and that was fine. Really different between guys who had just come out of school and somebody who is a mature student and who wants to be there. I mean we had to call the teachers 'Sir'. Some of them were younger than me. 'Yes, Sir, Mr whatever, or \*\*\*', and I said I'm not going to. And honestly, I was really reprimanded by not doing that. And I said 'I'm not going to do it, and you certainly haven't earned my respect'. He said 'Well, you call me Sir or Mr \*\*\*'. So I said, 'Well you call me Madam or Miss \*\*\*'. But there were just real differences. Real power differences. I felt really uncomfortable about it.

It was about four days before the end, so I managed to still pass. I had been really, really sick and we only had four welding, it was arc welding. We had done lots of ordinary welding but this was a specialised arc welding. I remember walking in feeling very happy. I had missed the first two classes, so I was really behind. That's the first time I'd met him. So I walked in there, had never met this guy before and within ten minutes we were standing there face to face absolutely arguing with each other. I remember him telling me to leave, 'Well bloody well leave then. Why do you want to be here?'. But I remember him swearing at me before that. Actually it was 'cunt'. That's what put my back up. He just said 'Why the hell haven't you been here?'. And I said, 'I don't see that it's any of your business. I've told my head of department'. And he says, 'Well, I don't want to teach you'. Then he swore at me. It was the first time that I really confronted the tutors. 'Cause these were people in positions of power. I said 'How dare you talk to me like that. You've absolutely no right to talk to me like that'. And he said 'Well, bloody well leave'. And I said, 'Fine'. And so I walked out and it just so happened, burst into tears, walked down the hallway and there was another guy there who I'd done lots of work with, one of the tutors. He stopped me and said 'What's the matter?'. And I told him what happened and he said 'Look, you've got to [go] immediately to the course supervisor and talk to him'. So I went up and I told \*\* specifically what had happened, and he said he would deal with it, whatever that meant.

I had absolutely no support. 'I can't believe that he just got away with that.' I remember the guys [students] thinking 'Oh god', they were quite shocked at this, 'cause I had been basically an A grade student. I'd always gone, I had two sick days, which I think is valid, and I think we are allowed to have. I did not finish and failed the course.



Some of [the tutors] were quite supportive, but I always felt

*they tried to direct me into electrical,*

*cleaner work for ladies.*

*You don't get your hands dirty.*

And women were far better at electrical, but once again that's because theory-wise there's lots of theory to it and it's a real thinking and I think women are much better at that. Whereas the men were not better, but had a lot more opportunity to do the things like unscrewing of bolts and precision work, which didn't really take a lot of thought but took a lot of physical work. I really enjoyed electrical, but I thought 'Don't push me in that direction. I'd like to do automotive engineering not just electrical engineering'.



Quite often, me and this other woman would pair up and do work and so that was something. And at least we knew we weren't going to be sexist or revolting with each other.

The boys were also 17-year-old men. I remember one talking about a rape scene, about how they'd got this young woman and they were real proud about it and patting each other on the back. And it was like, 'Jesus I don't want to stay here', and he talked about it as a sexual experience. He'd just raped her. These are the sort of things and I thought 'I don't want to be around people like this'. They were young, very nice, middle class boys who are going out into these garages that we have to deal with as adults. I found it really difficult with the young guys. Really incredibly difficult.

With the mature students it was different. I felt like I had a lot more respect. So that was from the older guys, they were far better. I felt like I could talk to them. But even

then we were limited in our conversations. If we just talked about engineering we were fine, if we talked about their social life. Actually, there was one guy who was absolutely excellent, Wiremu, he was great. He was my age and he and I got on quite well. We could talk about other things.

*Tutors still encouraged sexist behaviour,  
regardless of what age.*

The older tutors were incredibly skilled, but I felt they came from the old school. We had to call them Sir. But with \*\*\*\*, it felt very much a lot more equal. It also felt that I could fight back. I could verbally say things to him and he would probably take that on. But a lot of these old ones, they would not tolerate that sort of behaviour. So that was one good thing. But in terms of sexist and racist comments, they were still rampant.



My first day, I remember being really nervous. Oh, that's right, the first day we got absolutely stuck in to taking this motor apart and that was brilliant. Oh my god, hands-on work. I remember it being quite exciting and feeling really positive. We didn't get to meet the students or anything, meet each other. I think it would have been much better if there had been a lot more informal time to say hello to each other. That would have been really beneficial. And maybe if we knew a little bit more about the support services. The guys would probably have found it a bit weird

I remember the interview and something that stuck out really clearly to me. The tutor said 'Things are much easier for woman engineers these days in terms of getting apprenticeships, and if you really want one I am sure I can help you'. It was really supportive and I felt, 'Choice, this is great, this is really good'. Then he said,

*'but a lot of women fail and it is their responsibility*

as well, that they fail' so a lot of women don't come out of it at the end of it'. It was quite strange.

What he was saying? Well, what I believe I got out of it was that we need to work twice as hard, really. That a lot of women are failing and it's their own fault that they are failing. It was the timing and the way he looked at me, everything. You know, he

was saying there's lots of things around for women engineers today and then in the next breath he had that sort of change.



It would have been really nice if there had been a woman there. I mean, to me, I just know that one small thing, if I had seen a woman engineer teaching, especially a young woman, may be in her thirties, teaching, it would just have been [good], just somebody who was [not] going to play the boys' games and things like that, but who is actually aware of what it is like. It would just have made my life so much more different. There is a possibility that I would have stayed on, just with that one change and I think that needs to happen before they see women engineers, they need very positive role models.

[There were other women on the campus], lots of those women [secretarial] but I honestly just did not associate with anybody.

*I felt really isolated.*  
*Just incredibly isolated.*

'Oh god, it's just me . . .' I didn't make friends with anybody. I felt it was a really isolating place.

Mainly people stayed in their classes, but because I felt really ugly in mine I just ended up going and sitting by myself. I'd go to the room in the end. That was great. I'd go in there and just read and eat my lunch. And funnily enough, there were lots of women in there. Lots of Asian women, lots of different minorities in there. And we just all kept to ourselves, which is really sad. I think I knew of somebody and a couple of times we had lunch, but that was it. If I could get out of there, I'd go out for lunch



There was absolutely zero [tutors from other backgrounds]. There were two Maori guys [in my class] and the rest were white. This is Stage One. There was us three females. In Stage Two there was one Maori guy and me. We were the odd ones out. Having a Maori tutor [would have helped], definitely, just like having a female. I think it would have been really helpful for me as well, like, just seeing a bit of diversity.

[I was singled out] positively [by a tutor] and I got a really high mark as a result of him being supportive. I had my own personal support, which was absolutely important, but I didn't really know any other women in the trade at that time, so I didn't have anyone who knew that sort of stuff.



My brother was shocked. I was just thinking I was talking to my brother and he's like 'Engineering, you can't do that'. He was quite 'Oh god!'. I said 'Why not? I've played with tractors all my life, I come from a farming background'. It definitely helped.

We were really proficient at riding tractors, motorbikes and trucks before we were 12-years-old, we were really good at it. So we were used to putting in our own diesel, and our own fuel and checking water and oil and stuff like that, and some maintenance. So it was quite a surprise to hear my brother say that 'You can't do that'. 'We've been doing it all our lives, what are you saying?

*I can't do that because I'm a woman?'*

But then he saw how stupid that was, too. And after about ten minutes he said, 'Well, I suppose we have been doing it all our lives'. It's a skill, it's not a strength, you don't have to be really strong, it's a skill.

It's an absolute skill. The whole thing. The way you hold the tool. I remember getting the sump off always being really, really hard. Unscrewing it, really trying to do it. But the thing is, if you just put a bit of leverage onto it and perhaps put a bit of grease onto it, it's incredibly easy. Everything is a skill. The whole thing, there's not anything that's hard work, that is physically. Of course you've got to stand up for eight hours, and bend down and move and lift tools, but we do that in housework.

Yes, we had equal access to equipment. Usually you had your own table and with that came a set of tools. The tools and the expertise were brilliant.

A lot of them [tutors] didn't have a teaching background. They had their engineering background, but they weren't teachers. They didn't see that as much of a skill, and yet

to me that is exactly what they lacked, is how to teach the information in a way that we can all understand it. It was incredibly boring with someone talking in the one tone all the time, you are really struggling to hang on to information. Like, encouraging group activity and discouraging sexist behaviour. And those are things you learn in teachers' college, from being a teacher.

I think I learnt how to ignore it skilfully. . . I find that really difficult. Like, if I was walking down the street and somebody said something awful I'd feel obliged to react to it. Or if somebody was hurting somebody I'd want to think that I would try and stop that. And it was really difficult to try and change that, 'cause its something I like about me. If somebody was being hurt or abused or whatever I'd like to think that I would say something. But I had to go, 'No, I can't say anything if I want to get what I want out of this course and not be just totally isolated'. I think in the end, even though I was isolated, it could have been a lot worse.



I remember [a tutor] saying, on the first day, that there is a sexual harassment policy. And all the guys went 'Aw, Aw, Aw', and I'm the only woman in the class, and him saying 'Now if you men get sexually harassed, you know you can complain'. Now if those comments hadn't happened, it would have been good. If they weren't allowed to go 'Aw, Aw' like that, and that it was taken seriously that there is a sexual harassment [policy], and the reason why is because a lot of men make it really difficult for women, and it's not acceptable.

I don't believe [the tutors] isolated me, I believe that I had the same access to the tutors and the same access to the tools, the machines. What it came down to for me was the comments and behaviours. Their behaviours were not OK.

I think the tutors could do some 'human' workshops, or I mean, how do they deal with gay comments. The homophobia was rampant. We have rights now. It's the same as being a woman. Like, we have these laws in place, but they still practise it. They still have all that mentality, so that mentality has to change. And that's got to come through education.



Women-only engineering classes would be brilliant, though I can't just see that ever happening, but that would be amazing. But things like women are given more time on welding. It's a foreign thing for us. Lots of the guys have done it.. We should be allowed more time to do those sorts of things. And especially have women tutors in those sorts of areas.

I believe that the way women deliver information is very different from men. The words that they use, everything I believe is quite different. I mean it's common practice that men need to be aggressive in their work, but I see that as a threat, I don't want to be aggressive in my work. I want to be good at it, but I don't want to be aggressive in it. I don't know how to change that one, but women tutors would be really good. It would be great if there was a woman's space. I don't know if there is.

The timetable. I think that 8 to 5 for a lot of women is quite difficult. 8 to 5 is really difficult, if you've got kids, it's so hard. That's why it would be great if there was a women's engineering course. Part time, or maybe 9 to 3 or even 8 to 3.



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<sup>8</sup> Photograph by Lauren Nation Plimmer

## BRINGING THE STORIES AND THEMES TOGETHER

In their stories, the women have revealed several themes and issues in the experiences of women in trades education. Much of the narrative data speaks for itself. In this summary we will highlight the main themes and link them to the rest of the data collected by us, which includes the experiences of participants - both students and teachers. In the latter section, the data is supported by available literature.

The themes we have identified are: male-dominated work culture and women's work and study culture; feelings of difference; language; isolation; homophobia and heterosexism (this we discuss in more depth in the section on women in education). Other issues were also highlighted including, being 'better than', proving oneself, effect of prior experience, visibility, workplace experiences as a woman in trades, and sexual harassment. Some of these issues are clearly contribute to attrition rates.

The links with working class culture appear to be helpful, since trades culture is founded in the English working class environment. The beliefs and values of teaching staff also have a significant influence on the experiences of women, as does the presence or lack of women teachers and role models. Supportive friends and family, first impressions, and strategies for success are important aspects of the women's experience. According to tutors, women have a calming influence in the classroom, although they stress that physicality and strength, and opportunities for work, as issues that arose for women. All of these issues and themes demonstrate either supportive pathways or obstacles. Together they weave the tapestry of women's experience.

### **First Impressions**

The women's stories in the narratives confirmed our findings of few women students in trades education (see links with literature search in the next section for details). This was obvious to the women from the first day, and often had an immediate effect. We found that the first-day experiences for many women were also dependent upon how the tutors introduced and orientated students and the maintenance of a positive classroom environment. However, this did not prevent the feelings of difference and isolation expressed by all participants.

All of the women entering trades education did so with a very positive attitude. In spite of their knowingly entering a male-dominated area, many women still often experienced their first feeling of being ‘other’<sup>9</sup>. Fifty two percent of the participants said they experienced feelings of isolation or ‘otherness’. Some women looked for other women on campus but found that the, “only other females on the whole campus was the nice lady in the café and the office lady” (Tracey). Another participant also expressed the effects of her isolation:

*At the first smoko, for the first time in my life, I hated being female, I felt really out of place, but after that I got on with them well (Pat).*

When studying, women found it more difficult to cope with ‘male’ attitudes when isolated. One participant expressed this experience as ‘a feeling of being ‘other’ [that] can never get out of [my] head’ (Maria). However, negative experiences of sexism and isolation did not (at this stage) deter many women from continuing their course. Expecting a certain amount of resistance, they repositioned themselves. One participant said, ‘It’s just a matter of letting them know you are not going to take any crap’ (Fran). Assertiveness and self-confidence was an important strategy for survival.

### **Working and Studying in a Male-Dominated Work Culture**

Working in an inherently masculine culture presented different and special challenges for women in the trades. Barb talks of the male culture and “bonding” as ‘male familiarity’ and she suggests that a female-dominated environment would be similar. During the research we also gathered data on men in women-dominated work areas. This showed that in fact male students and apprentices were valued and nurtured, especially in hairdressing (Appendix 1).

Offensive behaviour by male students, such as sexism and racism, often became an everyday problem for the participants in the classroom, especially when tutors did not deal well with the situation, or even condoned the behaviour, as demonstrated in Kate’s experience:

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<sup>9</sup> ‘Other’ as a term was first used by Simone de Beauvoir in *The Second Sex* (1993, first published 1949).

*[The tutor had a] covert agreement with male students' attitudes of sexism and racism. One tutor closed the door before making a racist comment. The tutor would ignore a sexist comment carrying on writing on the board, and smile. [This made] male students' language [and] attitude acceptable.*

Women responded to the offensive behaviour of male students differently. Sometimes they were protected from it. Jane was excluded from the class by a tutor who 'would send me out of class if he wanted to swear or tell the guys off'. Beth accepted offensive behaviour, as many other students did, as part of the male-dominated workplace culture - 'You take it in your stride - at work a few smutty comments go around. [I just] ignore them or join in'.

Not all tutors condoned offensive student behaviour. Some dealt effectively with it in the classroom situation. Tutors stated from the beginning that offensive behaviour was not acceptable and most tutors 'deal with things really well' (Kathy). One student commented that it was mainly the students who dealt with other students' offensive behaviour. We found that in male groups, peer pressure - either negative or positive - had a significant effect on behaviour. In most cases, where a woman student was confident and assertive, she would deal with offensive comments herself. However, repeated incidences were experienced as 'wearing' on patience and energy.

Offensive behaviour in the classroom was classified as: lack of respect; ill-mannered, disruptive behaviour; put downs; swearing; sexist comments; graffiti; sexual innuendos; porn magazines; sexual harassment; and gender-negative comments, for example, 'You're just a girl', 'Can't you do the job?'; inappropriate jokes. One tutor also identified 'inappropriate dress' of females as offensive.

Teacher strategies to assist women in a majority male environment included providing a mentor, encouraging communication, not using 'put downs', removing graffiti from the desks, treating students equally and not allowing harassment. Some tutors felt that they should treat male and female students the same and stated that, 'It was not a glamour industry' (Peter) and 'Women didn't ask for anything different' (Thomas).

Few tutors were aware of sexual harassment policy and procedures and only one tutor in the study pre-empted the possibility of harassment or inappropriate behaviour by setting up a class contract. Acceptance of offensive behaviour as 'part of industrial standards', especially the use of language, was generally more supported in trades culture than tertiary education culture. Tutors felt that women 'cannot afford to be oversensitive, as in industry they must be prepared to accept bad language' (see section on male-dominated trades culture for further discussion).

Even though these pioneering women had enormous strength and courage, they sometimes became battle-weary from their experiences and eventually redirected their energy into more positive endeavours, which often meant leaving the trades. Sexual harassment or threats of harassment continued to be a controlling factor for women in trades education, restricting their ability to feel safe and eventually resulting in attrition. One of our key advisors talked about harassment both of herself as a tutor and of women students (Appendix 10). Although as women working in the area we saw women leave as a direct result of sexual harassment, it was rarely specifically given as a reason for attrition by the women themselves. Reasons for attrition were usually cited as childcare, financial reasons and domestic problems. Sexism was cited by one student: 'the tutor was sexist (he had] a smart attitude . . . didn't think women could do the job' (Chris); and harassment (not sexual] was mentioned by another. Sexual harassment is normalised in trades culture and most women in the trades come to see it as everyday behaviour. For this and other reasons, perhaps embarrassment or self-blame, women were reluctant to identify the harassment or the harassers.

Reasons for attrition given by teachers also did not include sexual harassment. Usually they believed, '[She] decided it was not what she wanted to do . . . it's dirty, against their nature . . . Differences in male and female [biological] affect why we do [different] jobs' (Andrew). Tutors did, however, cite violence against women as an issue in attrition, but this was connected to the home environment and not to the polytechnic environment. One tutor said '[She] had bad handling at home . . . They didn't like their wives being educated', indicating that men in general have difficulties with women who transverse barriers of education. There were some obscure comments that would suggest harassment, such as, continued the tutor, '[She] couldn't stand the pressure of the males because of a previous situation that had frightened her'. This reluctance by both women

and men students and tutors to identify sexual harassment as an everyday event affecting women's experiences has the effect of perpetrating violence against women and making it invisible.

Age sometimes appeared to be a factor in offensive behaviour, which was experienced more often from young males in trades education, who were reported as less interested in their study and more disruptive in class. Young males '... dominated the course ... Intimidation and sarcasm was underrated in areas like Auto Engineering' (Barb). Older male students were more often protective and supportive. However, sometimes they were also condescending and patronizing, especially those with old school beliefs about women's roles, such as the 'they should be barefoot and pregnant' approach.

*[On the] first course [I] knew two or three guys, went to school with them ... Most of the time the old ones stood up for me [when I was harassed], but they sometimes joined in and thought it was a joke. (Rachel)*

Feelings of difference, exclusive language, isolation, homophobia, heterosexism and racism were everyday experiences for these women. Such issues are huge factors for women in trades education and have become integral threads in the tapestry of women's experiences in male-dominated work areas. The degree of exclusion they felt varied, but the experiences were always there. The occurrence of disconnection or feelings of exclusion differed only with the intensity of these events/issues. At some level, the issues were always present.

As a result women, withdrew from the study and work environment where possible. Outside of class, few women spent their breaks or social time with male members of the class. They were usually by themselves, off campus, down town, in the library, in a quiet room, at the beach or in a café. Women preferred to spend their time 'with mature students or in the quiet room, mainly with women from other cultures' (Kate) rather than joining their classmates. Sometimes this was also problematic. Some women found themselves embarrassed and isolated when not looking stereotypically female:

*[I] didn't connect with any females. I don't like going where there are lots of army boys - they stare at me - a girl in overalls - I stare back and they get embarrassed (Jane).*

When women did spend their time with male class mates, in an attempt to become accepted, they joined male-dominated conversations, ‘. . .sitting outside talking, trying to impress each other with stories of incredibly difficult crash repairs we have repaired single handedly’ (Fran).

Gender and sexuality, then, is inextricably linked to the women’s experience in trades education. Young women especially were treated as sexual objects, as we see from Rachel’s experience above; competition among the male members of the class to ‘claim’ them was not uncommon. Again, age was a factor in experience. Older women usually found dealing with young males easier, perhaps because they were seen more as authoritative ‘mother’ figures that the young males felt they could not swear in front of or be rude to for fear of retribution. This mothering aspect was echoed by Rochelle ‘[I] just related like I do to my sons at home’ - although few women saw themselves taking on this role. On the whole, younger women appeared less confident and less assertive than older women and therefore sometimes had more difficulty dealing with sexism, racism, heterosexism and gender differences. Women generally, whatever age, were seen to have a calming or ‘civilising’ influence on the classroom environment, which teachers encouraged as it made their teaching easier.

Dress codes for women were strongly linked with gender and sexuality and expectations of dress stereotyping influenced even the most accepting males, including teachers. For example, a tutor approached Jesse to discuss ‘a problem’ in the classroom with a female student who was wearing shorts and a tank top and ‘distracting the males’. Jesse asked him what were the health and safety regulations in terms of dress code in the workshop and was she contravening them? Not surprisingly, her dress was acceptable and in fact the male students were wearing similar clothing. When asked, ‘Whose problem is it?’, the tutor acknowledge that sexism and sexual harassment could be an issue. He approached the solution quite differently after the conversation. A further example of the issue of dress code for women is given in a short section of a tutor interview in Appendix 9. Education about sexism and heterosexism was often, on the surface at least, effective. However, the reality of discrimination was an everyday experience and clothing was one expression of sexual availability or non-availability that women ‘took in their stride’. Clothing can ‘translate itself, ie, short skirt - tart, long skirt - prude.’ ‘People look at your hands; you get immune to comments’ (Jane).

The female body was also judged in terms of physicality and strength. These were often given as reasons for women not entering trades education. In spite of beliefs from teachers that using physical equipment and personal strength is a barrier for women in trades education, women participants agreed that physical strength and ability was not as important as skills and technique, and created no barriers. The ‘support’ from male students was sometimes a ‘double-edged sword’ (Rachel). Rachel ‘could never be sure where their allegiance lay’. Some males used the role of protector in order to support women, while at the same time questioning the woman’s right to be there and keeping women in the role of ‘other’.

*They questioned what I was doing there. [At the same time they] tried to help with the lifting of a heavy drum, “I’ll take that for you”, [they would say]. [But] I wouldn’t be here if I didn’t want to do this (Phil).*

Generally, male trades culture also often defines the gender division of labour as a positive thing for women, making work for women in what is seen as women-appropriate work areas. For example, women automotive engineers were reassigned to the spare parts sales division because they are ‘good with people’. Women in the meat industry are considered, ‘very dextrous . . . good in retail packing, serving [and] counter work’ (Peter).

With these attitudes, many women who had studied in trades education found it difficult to get appropriate work experience. Some teachers cited employers’ lack of facilities and worries about the women ‘getting on with the men’ as reasons. When reluctantly agreeing to take women students, they were pleasantly surprised when they found that women often excelled in their work.

### **Women Teachers, Role Models and Positive Learning Environments**

In trades education, women sought out the company of other women (sometimes in vain) as positive role models. Women in the narratives and other participants saw a women-dominated study and work culture as more productive to study and work environments. Many valued the affirmation and support of women peers and role models. It helped with ‘stupid sexist comments’ (Kate) and ‘makes [the] course more relaxing and enjoyable’ (Barb). It also ‘helped with the testosterone problem!’ (Phil). Women who had been on all-women courses preferred all-women classes and found

that women 'learn and teach differently', the teachers were 'more patient', care was taken to use positive language and the classrooms were 'not aggressive'. The women found it easier working in an all-women environment and 'would prefer a better [gender] mix' when working in male-dominated trades courses.

Other women had little analysis of this issue. Some could not see the point of working with women when the reality was that they had to work in a male culture and learn how to do so. When asked how they felt when studying in a course made up of mainly male students, these women saw it as part of studying and working in a male-dominated area. Three women said that they did not think it was important. Janet said 'It doesn't bother me, male or female'. Some women liked mixed classes, especially when doing a traditionally male job. They found it useful, as it gave them experience relating to men and they felt that they should be able to work with any sex. Pat found that she had adjusted to putting up with a lot of males and therefore couldn't stand being with a big group of women. It is difficult to tell what effect the male-dominated culture and the need for belonging had on Pat's analysis, but such attitudes often link to strategies for success, one of them 'being one of the boys'.

### **Strategies for Success**

When women talked about their strategies for coping as a minority in a male-dominated trade, some cited assertiveness as a major factor. Other suggestions included 'going with the flow', keeping quiet, using humour, working hard, or seeing themselves as 'one of the boys' and no different from the men.

'Being one of the boys' was a strategy employed by the women and was seen as a sign of acceptance by the men. One woman related with pride that she was nicknamed 'Fred' by her male workmates, showing that she had achieved the position of 'one of the boys'. When asked how she related as 'one of the boys', she said,

*. . . They just treat you like I'm one of them and I just sort of fit into their group, really, I just have lunch with them and smoko with them and laugh at their silly jokes (Jane).*

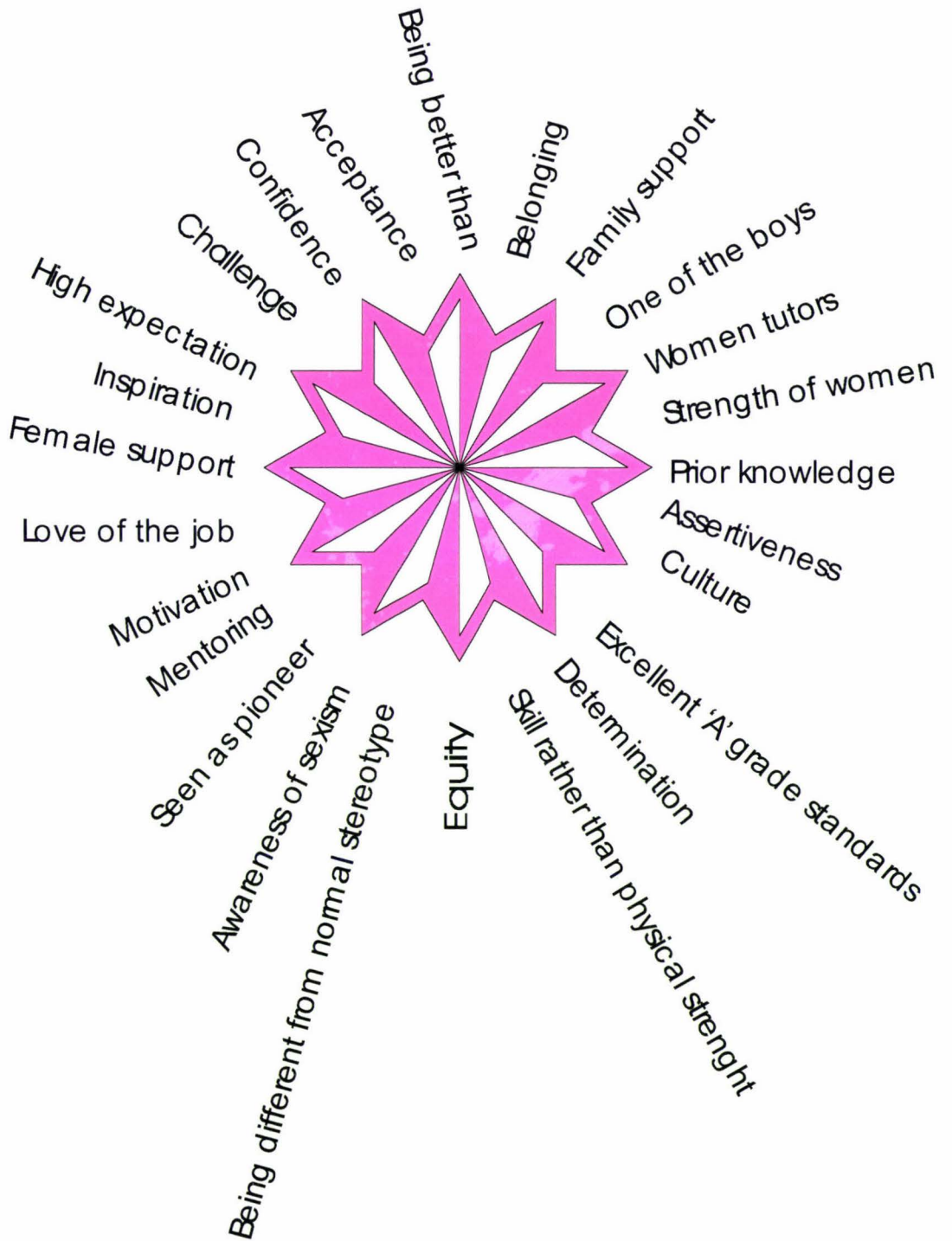
Teachers also acknowledge the strategy taken by women to be 'one of the boys' as an advantage. One observed that males become protective when the women become 'one

of us'. (Does this mean that before then they were not protected?) However, for the women, 'being one of the boys' could also mean that there is a danger of further invisibility as issues for women could be normalised by male values and discourses. Women dealt with sexual harassment and invisibility either by confronting it or by 'being one of the boys' and accepting it as normal workplace behaviour. Women who used this strategy, over half of the participants, stated that either they had no problems studying with men or that they handled any issues that arose, thus making them unproblematic. However, women were not blind to inappropriate male behaviour. They were disapproving of what they saw as immature 'silly male behaviour', although this also made male behaviour less problematic and women's experience less visible.

In addition to 'being one of the boys', strategies for success, which included the illusive ideal of an equitable environment, were defined as determination, assertiveness, confidence and self-esteem. Proving oneself, having prior experience, and supportive friends and family were also found to be essential. All of the women in the narratives show prior knowledge as a success factor. This is supported by teachers and other participants. A need to prove themselves was also a common experience.

As the narratives show some women often felt that they had to be seen to be better than men to be accepted. Women worked hard and were able to show that women excelled academically, which was an area where many men had problems. This may not have been the case for Maori women or women from other cultures, who have the added disadvantage of the effects of societal racism and may not have excelled in a white, Western-based education system. We did not have any Maori women in our sample. This is an area for further research by Maori woman. This strategy kept up women's confidence and enhanced their success. It was used as a way of getting acceptance from tutors and male classmates, but it was also problematic. Rachel commented that 'The tutor was only with me when I was top of the class'. Other comments included, 'Females have to prove that (they] are pretty damn good - not necessarily better, but one of the best' (Bobbie). 'You've got to give it back if they hassle you. Then they think "Oh she's alright, leave her alone"' (Anna). The diagram on the following page illustrates the strategies participants listed.

## Factors and Strategies for Success



## Support

Feeling supported by teachers, family and friends also gave these women encouragement to continue with their study and do well. One teacher was ‘brilliant, supportive, [he was] my age - he was not intimidated by students’ [negative] comments. If the tutor had been different my experience might have been different. [He] didn’t treat us differently, [he was] good, helpful, patient, and he would go over class work’ (Rochelle). As indicated in the narratives, supportive families often had a background in the trades and therefore it was acceptable for those women to be involved in trades work areas, they had grown up with it. Support of family and friends during the course was invaluable. Many of the women spoke with pride of their family support. Their human endurance, which required them to overcome sexist stereotypes, was often recognised and celebrated by family and friends. However, women were not usually deterred from their choice if their family was not supportive.

## Classroom Culture - the Effect of Positive and Negative Teachers

Although some women found being singled out a negative experience, there were also positive experiences. For example, Helen earned a Female Apprentice of the Year award and the course supervisor announced it in front of the class. This had a positive affect for Helen, as it gave her credibility with the other students.

Other students found teachers’ behaviour less than helpful:

*[We] were offended by tutor behaviour, [He was] touchy feely with a couple of students and made [offensive] comments. He got snarky when told [and] made sarcastic comments [like] ‘don’t bother asking for help’ (Tina).*

In this case students made an official complaint, which was discussed with the tutor. He responded that he ‘didn’t realise the student had a problem’, implying that it was the student’s problem and not his. However, he apologised and said ‘. . . he would be more sensitive in the future. [He] asked me to let him know if he was over the top’. Not only did the tutor refuse to accept responsibility for his own actions but he also put the responsibility back on the student to let him know if his behaviour was at an acceptable level.

Tutors' awareness of sexism issues and assertiveness sometimes had contradictory effects on students' experiences in the classroom. Women experienced on the one hand that tutors were very knowledgeable, but on the other that tutors' attitudes to women and cultural groups, and their aggressive/authoritarian teaching strategies, interfered with students' learning. Kate was aware of derogatory behaviours and comments that happened in the classroom. This awareness caused some conflict and made it difficult for her to have an acceptance that the tutor was skilled and had important knowledge to impart, especially when at the same time she had to put up with an environment that she felt was detrimental to her learning. She was clear that the tutors were '... sexist, racist, aggressive, highly skilled [but] not teachers'. This may link to the clash of cultures still present in polytechnic environments, where trades culture is different from educational culture. We explore this later.

### **Pros and Cons of Male/Female Tutors**

Women saw the advantages and disadvantages of having a male or female tutor according to general stereotypes. They saw the advantages of having a male tutor as linking into expertise and experience in the male-dominated domain from which they had previously been excluded. 'If it's engineering, it's an advantage to have male tutors, because it's a male thing and they have been there and done that' (Beth). Some of the women saw the friendliness of women tutors as 'unprofessional' compared with the perceived 'professionalism' of male tutors. Jackie commented that it was '... good to talk to [women tutors] for females, but [the women tutors] could be put down by male students'. The shortage of women tutors in male-dominated trades areas was however, an issue for all women students.

### **Opportunities for Work**

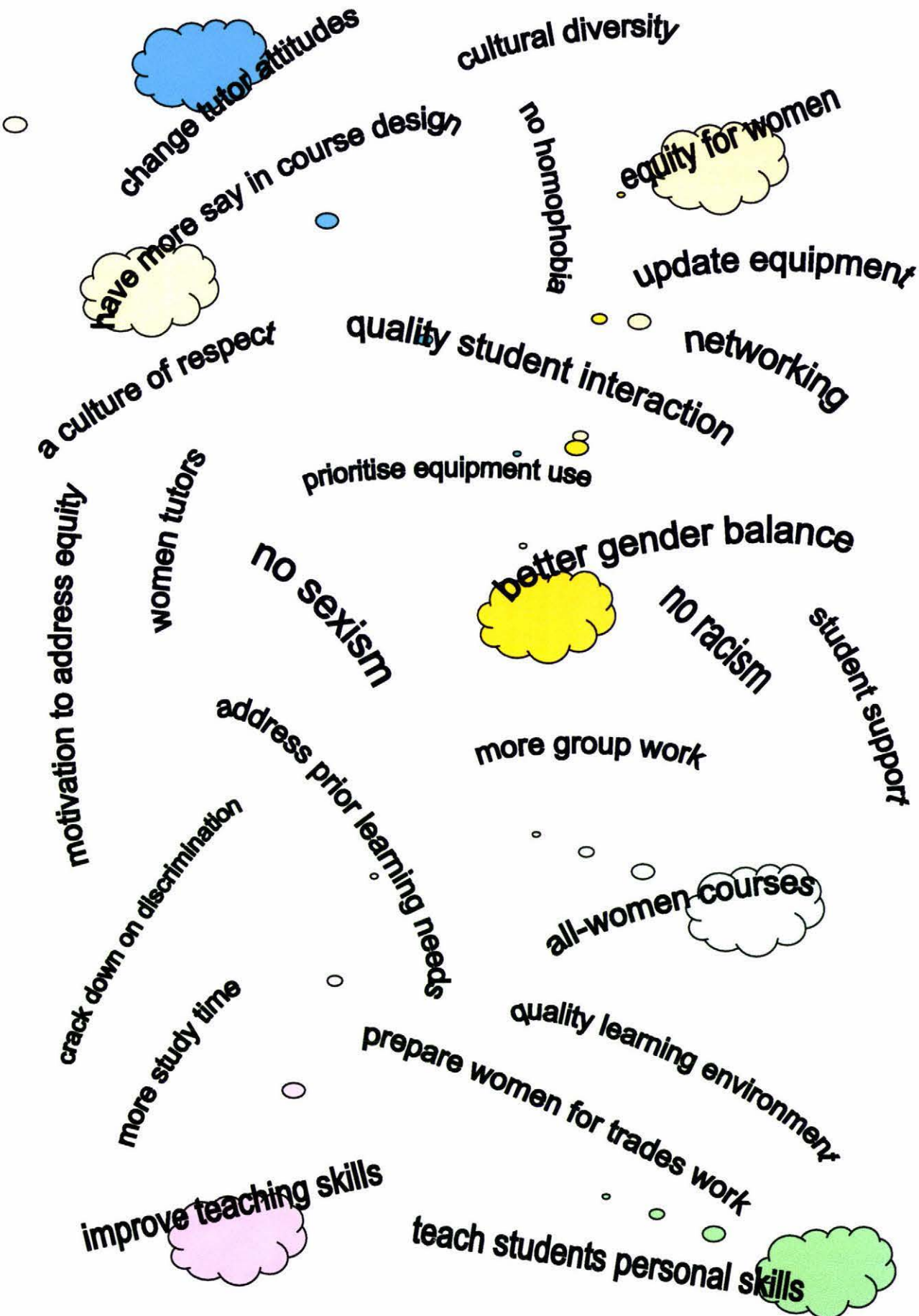
Trades work for women was difficult to obtain. Most of the tutors did not know any students working in their area of teaching. Andrew mentioned a particular student who worked in the automotive area. When asked for reasons for the student's success, he identified that 'She dealt with bad comments easily', suggesting that this is a necessary skill for a woman working in the trades.

Employment outcomes for the women were often dependent upon obtaining an apprenticeship as this is needed after completing the pre-apprentice courses, before the student can continue their trade's career. Even if women did get an apprenticeship, we found that women, once qualified, would often choose self-employment or work in other areas to avoid male work cultures. A more in-depth exploration of employment issues continues in the literature search.

### **Dreamtime**

At the end of each interview we asked women to have a 'dreamtime', and suggest improvements they would like to see made in their work area. The following page represents their responses.

Dreamtime



This, then, is what it means for these women to be in trades education heading into the twenty-first century. What students are asking for is 'best practice' in the teaching and learning environment. This would allow them to have their learning styles accommodated and to study and work in an equitable environment. Many polytechnics have recognised the need for teacher training and have programmes in place for staff development.

These findings are also supported and broadened by investigating the literature in trades education and work, which follows in the next section.



*Chapter 3*

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**WOMEN IN TRADES—LITERATURE SEARCH**

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## INTRODUCTION

*Pioneer women as a type are extraordinary in a number of ways. They are usually highly committed and determined. They will allow nothing to stand in their way, can take all that their employer, fellow workers and the job can demand of them and come through. Such women may be so obviously outstanding that they set new standards for their male co-workers (Kuiper, 1986:2).*

The intention of this literature review was to develop a further picture, and to confirm the findings of the issues affecting women in male-dominated trades. We found similar themes being addressed by the literature available. However, in exploring the literature in this area we experienced substantial difficulties in finding up-to-date information on studies into the experiences of women in the trades in Aotearoa/New Zealand. The last extensive and detailed study of a similar type to ours was produced in the 1980s by Alison Kuiper, while she was working at Christchurch Polytechnic. Due to the lack of recent Aotearoa/New Zealand literature, we have had to rely heavily on more general educational literature.

In order to make a comparative approach and validate the limited literature available from an Aotearoa/New Zealand perspective, we have looked at literature from other Western-based cultures which shows a similar picture.

## GENDER DISTRIBUTION OF OCCUPATIONS

*. . . occupational segregation by sex remains a feature of the (Aotearoa/New Zealand) workforce (Ministry of Women's Affairs, 1999:95).*

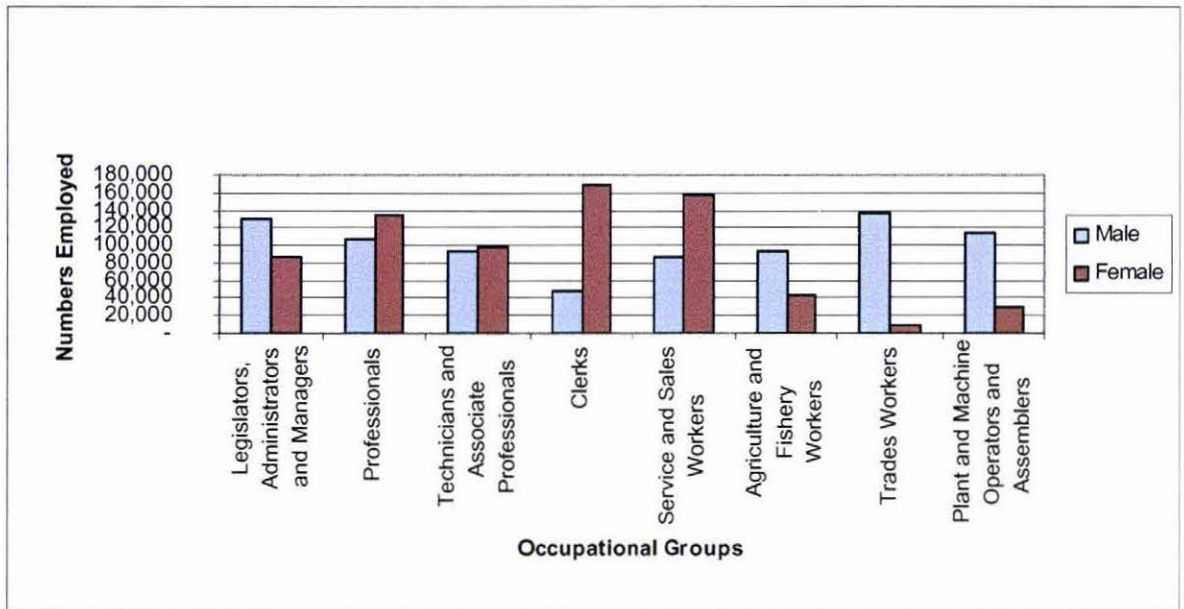
The participation of women in the Aotearoa/New Zealand labour force is increasing. In 1986 it was 53.3%, in 1996 it was 57.9%<sup>10</sup> and in 2002 it is 59.1%<sup>11</sup>. However, as the following graph indicates, the majority of women are working in different occupational areas from men.

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<sup>10</sup> Ministry of Women's Affairs, 1999.

<sup>11</sup> June 2002 Household Labour Force Survey.

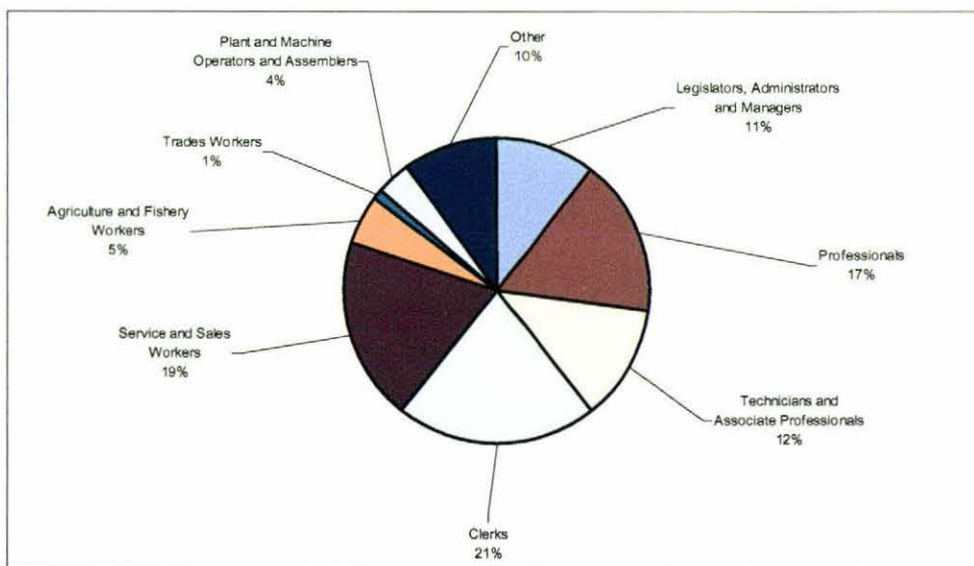
Comparison of the occupational groups for full-time employed women and men<sup>12</sup>



The above table demonstrates that over 40% of women full-time employees work in clerical and service and sales areas, whereas major employment areas for men are trades, plant and machine, and management.

The following pie chart gives a comparative breakdown of the occupational employment areas for women.

Occupational groups for full time employed women<sup>13</sup>



<sup>12</sup> Adapted from 2001 Census information tables.

<sup>13</sup> Adapted from 2001 census information.

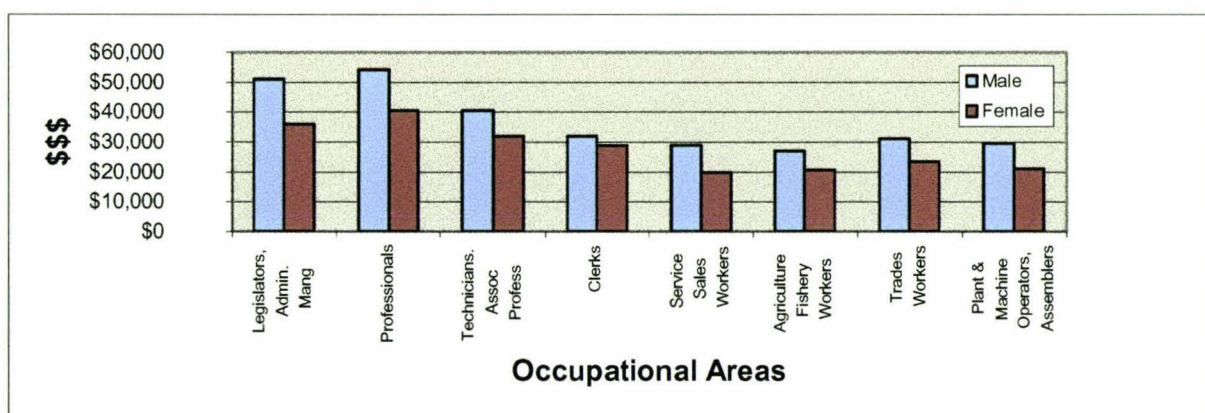
With only 1% of women employed as a trade's worker, and 4% in plant and machinery, there is a clear indication of the sexual division of labour in Aotearoa/New Zealand. One explanation for this division of labour is that a higher percentage of women work part-time (34% of all working women, compared with men at 11% of total male workforce)<sup>14</sup>, and it is easier to obtain part-time work in certain occupational areas. However, women in trades generally do not work part time unless they are sidelined to support roles, such as parts service areas.

### GENDER DISTRIBUTION OF INCOME

*[Income is] a fundamental determinate of human welfare and life chances. It is central to achieving many of the social and cultural objectives in people's lives. (Statistics New Zealand, 2002)*

This is also the case for women working in the trades, although available statistical information is more general. Not only are the majority of women employed in a limited range of occupations, but the majority of these occupations occupy the lower income ranges. Trades are not usually in the lowest income range in Aotearoa/New Zealand. The following chart shows that women earn less than men in all of the major occupational areas.

Total Personal Income and Sex by Occupation (Full-time)<sup>15</sup>



<sup>14</sup> Adapted from 2001 census information.

<sup>15</sup> Adapted from 2001 Census tables, [www.stats.govt.nz](http://www.stats.govt.nz)

Figures from the 2001 census (Statistics New Zealand, 2002) show that women employed full time as service and sales workers (19.5% of all working women) earned the second to lowest median income (\$19,700) and the average hourly earnings were the lowest in the major occupational groups<sup>16</sup>. This income was also only 68% of the median income earned by men in the same occupational area. Women professionals and women trade workers earned only 75% of men in the same occupation area and, when looking at the Legislators, Administrators and Managers occupational group, only 70% of men's income. The median income for women at March 2001 was \$14,500, that is 58% of men's median income, which was \$24,900.

Factors relating to the income of women include age, ethnicity, highest educational qualification, number of hours in employment, occupation, industry, region, and various family and household characteristics (MWA, 1999:122). When looking at equal pay, part of the basis for inequality of wages between men and women originates from the idea of a 'family wage' designed to allow a man to support his wife and family. This is largely a myth. Reskin (1998:279) considers that the major cause of this wage gap is the division of women and men into different kinds of work and states that 'One of the most enduring manifestations of sex inequality in industrial and post industrial societies is the wage gap'. The Human Rights Commission (Pay Equity:2) argues that 'it is estimated that 30% of the pay gap is for no other reason than discrimination against women'.

In terms of ethnicity, European women had the highest female median income,<sup>17</sup> followed by Maori women and Pacific Island women. Asian women received the lowest income. When looking at age-related income, Maori women have lower incomes than non-Maori women at every age. They are also significantly less likely to be included in the highest grouping of incomes, even though their labour force participation rate is equal to non-Maori.

The following table demonstrates that level of qualification does not bring women equality in income.

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<sup>16</sup> Taken from the New Zealand Income Survey – June 2002 Quarter.

<sup>17</sup> Median incomes calculated from census income ranges are estimates and are calculated by assuming the income values within a range are equally distributed across the range (MWA, 1999:143).

### Average Income By Qualification 25–34 Age Group 1999<sup>18</sup>

	<b>No Qualification</b>	<b>School Certificate</b>	<b>6<sup>th</sup> and 7<sup>th</sup> Form</b>	<b>Other Tertiary Qualification</b>	<b>Degree including Post-Graduate</b>
Women	\$19,600	\$21,800	\$30,500	\$25,500	\$37,000
Men	\$28,900	\$32,000	\$38,000	\$36,600	\$47,500

The figures in the previous two sections show that not only are the majority of women employed in narrow occupational groups, but these groups receive incomes at the lower end of the scale. Women in all of the occupational groups receive less income than men, and women's level of qualification does not improve their percentage of income when measured against that of men. The next section looks at how equal opportunity and equity in the workforce is supported in Aotearoa/New Zealand.

#### WORK ENVIRONMENT AND EQUITY LEGISLATION

The work environment for women is also affected and in some ways supported by legislative factors. The Equal Pay Act 1972 provided for equal pay for men and women doing the same job. It did not address the issue of equal pay for work of equal value or equal opportunities for promotion.

While this Act was implemented within the Public Service it was not widely executed in private industry. The New Zealand Institute of Economic Research (cited in NZCTU, 1998) stated that the wage gap was expected to continue to widen over the next five years. By 2000 women earned 84 cents for every dollar earned by a man and took home only 74 cents per week for every dollar of men's weekly take home pay (Human Rights Commission, nd).

Anti-discrimination legislation such as the State Sector Act 1988 and the Employment Equity Act 1990 were superseded by the Employment Contracts Act 1991. Statistics gathered for this thesis show that in spite of more recent anti-discrimination legislation, for example the Human Rights Act 1993 and the Parental Leave and Employment Protection Act 1987, discrimination for women still exists. A discussion document

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<sup>18</sup> Ministry of Education, 1999.

released by the Ministry of Women's Affairs (2002) considers that 'women are finding it increasingly difficult to achieve and sustain economic autonomy while meeting society's expectations that they carry the major responsibility for unpaid work'. The document recommends that pressure be placed upon all levels of policy analysis in an effort to close the pay gap. Women are still employed in the less skilled, lower pay range employment areas. Employment of women in trades areas also reflects this general picture of employment and income.

### WOMEN'S REPRESENTATION IN NON-TRADITIONAL TRADES

Having an apprenticeship has often been seen as a good career option for school leavers. In the late 1980's 20% of men had an apprenticeship compared with 3% of women, however three-quarters of women's apprenticeships were in hairdressing (Dept Ed 1989). Figures obtained from Skill New Zealand (Appendix 1 and 1a) and Department of Education (Appendix 2) clearly show that women have consistently been under-represented in the majority of industry areas covered by trades apprenticeships. Women's participation in building, plumbing and engineering are less than 1%, in motor, telecommunications and electrotechnology the participation is less than 3%, while in hairdressing (one of the lowest paid trades) 92% of apprentices are women.

With the majority of women employed in lower paid occupations and trades, and receiving lower incomes than men in the same occupations, women are clearly suffering discriminated. This picture is reflected in the statistics for women employed and/or studying within trades.

### **Gender Distribution of Apprenticeships**

In the late 1980s, 20% of men held an apprenticeship compared with 3% of women. However, 75% of women's apprenticeships were in hairdressing (Department of Education, 1989). By 1999, 7.58% of students enrolled in industrial trades and crafts<sup>19</sup> areas of study at certificate level in polytechnics were women. However, if the figures for clothing and textiles (85% women), and graphic arts and printing (56% women) are removed, the percentage of women involved in this trades grouping drops to 3.8%. By July 2000, the figures for women in the trades had not changed (Appendix 4).

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<sup>19</sup> This field of study includes building, electronics, mechanical and repair, metal trades, painting and decorating, panel repair, plumbing and gas fitting and woodworking trades.

A further picture, including 2001 figures of female participation in non-traditional trades in Aotearoa/New Zealand, can be seen in the Industry Training Organisations (ITO's) Industrial Trainee figures (Appendix 2). This shows the continuing low participation of women in the male-dominated trades.

#### ACCESS TO APPRENTICESHIPS FOR WOMEN

Historically, apprenticeships were developed as a form of protectionism for skilled workers and their skill base. Apprenticeships started in ancient Egypt and in Britain in the late thirteenth century. Guilds were formed to protect wages, working conditions and training. The fourteenth century saw the use of guilds for controlling journeyman numbers within trades and by the fifteenth century a law made apprenticeship the only legal entry into a trade. There was no means of enforcing this and by the beginning of the sixteenth century employment conditions had changed. Instead of a live-in unpaid situation, a small wage was provided. After the industrial revolution in Britain, trade unions began to take over the role covered by guilds, including the rules governing numbers of apprentices to one journeyman and conditions of employment (Pearce 1977).

This apprenticeship system, brought to New Zealand with the new immigrants, was clarified and developed through government legislation until the 1948 Apprentices Act, which set up the system that was still running in the early 1990s. The 1948 Act introduced day release or three weeks a year block courses and the New Zealand Trade Certification Board was set up to provide national trade qualifications.

Although there were no legal, age or sex barriers to anyone wishing to take up an apprenticeship, 'apprenticeship has traditionally been considered to be the prerogative of young men' (Vocational Training Council, 1978:3) and little effort was made by those holding the power to provide equality of opportunity for women.

A break-through appeared for women in the new Apprentices Act 1983, which improved the training and recruitment of apprentices. As well as a general training subsidy for apprentices, a Female Apprentice Incentive for Recruitment (FAIR) provided an extra \$20 a week for the first year of training, in trades other than

hairdressing. This was intended to widen the opportunities available for women wishing to enter non-traditional work areas (Catherwood, 1985). Even with these programmes and with the establishment of an equity fund to develop childcare facilities and support women's advisory committees in polytechnics, together with the "Girls Can do Anything" campaign, all aimed at supporting women into non-traditional study and work areas, the numbers did not noticeably increase. Little effort appears to have been made by polytechnics to encourage women in studying non-traditional topics. Instead, the emphasis was on encouraging women into traditional areas of study, such as secretarial work (Day, 1992). The reasons given were that there was a definite employment market and that conservative organisations reflected the gendered division of labour.

### **Recent Changes in Provision of Apprentice Training**

Aotearoa/New Zealand training for trades has dramatically changed since the introduction of the Industry Training Act 1992. This Act introduced the concept of Industry Training Organisations (ITO), which were responsible for setting training standards for their industry and also for delivering, purchasing and monitoring training. The industry trade training was also dramatically changed from the centralised external Trade Certificate qualifications to new qualifications set up under the New Zealand Qualifications Framework. These qualifications were conducted through an 'accredited provider'. A reduction in government funding has forced industries to examine their methods of training and to consider less industry-supported, off-job training.

The Modern Apprenticeship System developed in recent government policy (January 2001). It emphasises a partnership approach, linking employers and apprentices through coordinators. A recent injection of substantial funding by the Labour government is hoping to encourage the up-skilling of the population at trades level. This follows a dearth of funding and the emigration of skilled people from Aotearoa/New Zealand, leaving a shortage of skilled tradespeople. Women remain a small proportion of these.

There is no evidence to suggest that these changes will either hinder or assist women in trades. However, with the cost of early training being placed on the prospective

employee, the question of investing money in training for the future, only to find, later, employer resistance to employing women, is an additional issue in women's access to the trades.

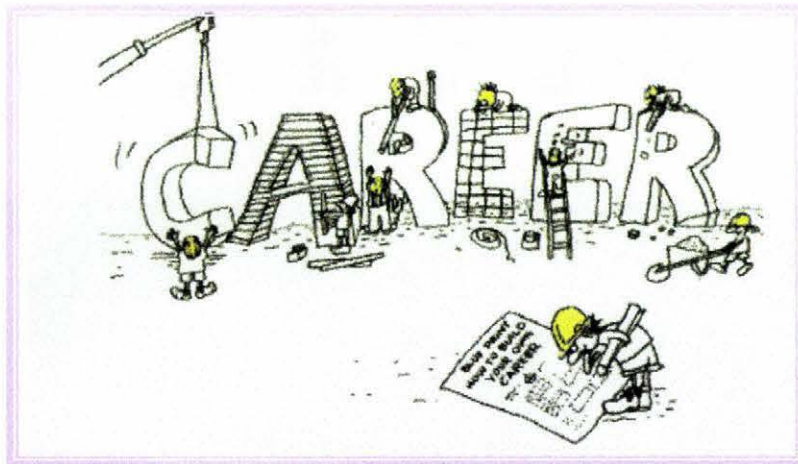
As discussed, throughout this thesis, male-dominated trades areas inherently produce and re-produce hegemonic male-dominated organisations that historically see women through their sexuality rather than as workers. These organisations are uncompromising and protectionist of men, thus maintaining the social order that subordinates and excludes women. Hacker (1989, cited in Acker, 1991:174) argues that

*eroticism and technology have common roots in human sensual pleasure and ... for the engineer or the skilled worker ... there is a powerful erotic element in work processes. The pleasures of technology ... become harnessed to domination, and passion becomes directed toward power over nature, the machine, and other people, particularly women, in the work hierarchy.*

## REASONS FOR WOMEN ENTERING NON-TRADITIONAL TRADES

*By entering – and succeeding – in trades traditionally reserved for men, women not only are lifting their families out of poverty, but also are giving their children wider opportunities (USA Today, 1994:70).*

Similarly, women in our study usually entered trades education to pursue well-paid occupations. In order to follow a career in trades all women have to overcome barriers.



20

<sup>20</sup> 'Women Just Don't Apply', Taken from *Women and Work*, Vol 17, No 2, August 1996

Longstanding resistance to women entering 'men's' work areas would suggest there must be strong reasons to do so. Generally women who do paid work give job satisfaction and interest as the main reason for working. (Tall Poppies, 1997). Our research shows that women are treated at best with suspicion and at worst with abuse and ridicule if they dare to cross these barriers. According to the Continuing Education Division of the Department of Education (1989), job segregation patterns and beliefs in misguided stereotypes are reinforced by attitudes such as 'Women only work for pin money', 'Boys and men "deserve" better education than girls and women, because men have to be the main breadwinners for their families', or 'It's a waste of time training women as they will only marry'.

A greater percentage of women are now the sole wage earner in a family. This is the case whether it is because they have remained single, are single parents or because their partner has left the work force through redundancy, ill health or age. The number of partnered women who are sole breadwinners has doubled between 1986 and 1991. Women now have a greater economic incentive for higher paid employment, since their changing social status has meant that they shoulder a greater financial burden. The greater responsibility in the changing social status has not, however, increased women's value in terms of their unpaid work. Neither has it changed their status in the paid work area. Differences in power and status are directly related to occupational choices (Henwood, 1998). However, Touhey (cited in Schaffer, 1981) suggests that when the percentage of women in high-status jobs increases, the prestige reduces, while if the percentage of men in feminine occupations increases so does the prestige.

*'The whole point of the historical under-valuation of women's skills was to avoid paying for them. It has been a conscious strategy to keep women on low pay'* (Probert, 1992, cited in NCVET, 1993:9).

The style of work possible with a trade qualification could be attractive to many women. On-the-job training and supported training courses leading to recognised certification or specific career paths are desirable. Trades such as plumbing, carpentry and electrical work offer women the opportunity to run a business from their own home, working flexible hours which suit their own needs, perhaps in partnership with other women in similar circumstances (Horsfield, 1988; *Broadsheet*, 1995).

## BARRIERS FOR WOMEN

Our research findings are supported by the literature, which identified issues for women entering trades as social attitudes, language, work patterns, the positive or negative influence of family members, lack of employment prospects and costs (including education and childcare). Organisational training barriers such as technology, learning styles, timetables, tutors' attitudes and the classroom environment are also addressed. Research has also found that women are assisted by a strong sense of determination to succeed, confidence in themselves, co-operative learning environments, assertiveness skills, supportive tutors and women-only courses. Sexuality and sexual harassment are also strong factors producing difficulties for women entering the male-dominated trades.

Frequently, arguments against the involvement of women in trades education refer to the abilities or qualities assigned to male/female sexes as being 'natural' for that sex. Research by Butler, Levy, McGlone, Nyborg and Whitleson (all cited in Jenson, 1996) shows evidence of physical brain differences between females and males and the effect of these differences on development. The earlier right brain development of boys, helped by their better distance vision and depth perception assists in spatial skill use and practice. Girls' left-brain development of linguistic skills, helped by superior hearing, gives a boost to women's strong communication skills (Jensen, 1996).

A major reason often given for the lack of women's involvement in technology is that women do not have the higher visual-spatial and mathematical aptitudes that men have. Women are not born 'infirm' in this area; they are taught that they are inferior by sex-role expectations of parents, teachers and peers. The focus of girls' success in education tends to be on the measurement against what boys are successful in and where girls are not successful, rather than where they are successful (Jones and Jacka, 1995). Women are often guided away from career choices because of these supposed lack of abilities (Schaffer, 1981), which are often created by society and are generally considered a result of nurture rather than nature (Kennedy, 1987).

*'Sex differences in ability aren't responsible for sex-typed career choices.*

*Sex biases of society . . . are responsible' (Schaffer, 1981).*

Therefore the barrier is social rather than intellectual.

## **Education and Training**

One of the reasons we have linked trades education and work is that education is a major preparation for future employment and there has been an increase in the percentage of women leaving school with a formal qualification from 75.3% in 1986 to 83.4% in 1996 (MWA, 1999). However, while in 1999 women made up the majority of students in each sector of tertiary education their choice of study involved the traditional areas of medical and health, social, behavioural and communication, and education. Eighty percent of students in Colleges of Education were women. ([www.mined.govt.nz](http://www.mined.govt.nz), 30 Sept 2001).

There has been a slow increase of women studying and working in non-traditional areas at the professional level (Statistics NZ, 1993; Ministry of Education, 2001). This is often used as an indication of the participation of women generally in non-traditional areas. However, this does not represent women in the trades.

As we have discussed, a lack of prior knowledge and training in technology at school does put women at a disadvantage. It should be noted at this point that changing skill requirements in the technology industry in terms of a greater emphasis on communication and customer interaction skills are usually prior learned abilities for women. Industry, however, has not yet acknowledged women's strengths in these areas with job offers (Bailey, 1995).

## **Gender Roles and Women's Choice of Occupation**

*All women grow up having to deal with historically and culturally engrained definitions of femininity and womanhood . . . (Belenky et al, 1997)*

Society's attitudes to the roles of men and women differ throughout the world. What is men's work in one country may be women's work in another. In the Western world, men are often identified by their work role and women by their social role. While legislation may state that everyone is equal, people are still identified through gender stereotypes (Schaffer, 1981; Hall, 1993). As discussed earlier, stepping outside these role 'norms' makes women very visible and they can be viewed as ' . . . deviant or "odd" by those women who have made more conventionally "female" choices, as well as by

men' (Deem, 1978: 94). While some women are successful in a non-traditional area of work they have to constantly prove themselves equal to men and 'they are considered exceptional, somehow "different" from ordinary women' (Adams and Laurikietis, 1980).

As we have seen from the narratives, accepted sex role divisioning in Aotearoa/New Zealand society still existed even in the 1990s, and has significant effects on the social acceptability of paid occupations of women and men. Women are accepted as continuing their social roles as nurturers and carers by taking on such jobs as nurse, teacher and social service provider (Kauppinen *et al*, 1989). Men maintain their dominant masculine role by involving themselves in 'men's' work, which is often equated with dirty, heavy or 'difficult' jobs and frequently associated with technology of some sort. This is echoed by Lovelock (1999) in her research on the relationship between men and technology. She found that machines played a central role in constructing a hegemonic masculinity in the worksites of a mill and a freezing works.

*Hence, a real man worked hard to support his family, often had to do dirty work, was tough and strong, was heterosexual, and communicated through work that he did, not through what he said . . . the centrality of men and the productive process and the location of women on its periphery has become a normative standard that continues to shape gender relations in Maitua (op. cit.:128).*

Cockburn (cited in Henwood, 1998) considers that machinery and technology are closely associated with masculinity and male power, producing a work culture that assists in rejecting women from these work areas.

Our study examines the role of the need for women to be 'one of the boys' and looks at the power relations between men and women amongst the students. Newton (cited in Henwood, op.cit.:37) describes women in trades as androgenous, thus denying the 'cultural value' of femininity. Henwood (op.cit.) considers that this could be an explanation for the lack of change in job segregation patterns.

## Protectionism

Windsor (1991) considers that one of the reasons for lack of progress for women in the trades is protectionism. Often both management and skilled male workers gain by allowing women to take over semi-skilled areas. The employer gets the job done more cheaply and the skilled man protects the erosion of his skill by changes through new technology. However, this is done without the acknowledgment of the skills involved in relation to status, training, future career or pay. Windsor quotes one tradesman as saying 'If [the women] want to do that, we don't have a problem but . . . we're not having any women in the test room . . . over my dead body' (op.cit.: 21).

In protecting their livelihood, men deny women theirs. Reskin (1998:284) considers that

*. . . men (also) resist allowing women and men to work together as equals because doing so undermines differentiation and hence male domination.*

She goes on to say that while men will resist women doing traditionally male work in a male setting, they will accept women doing 'men's work' in a traditionally female setting and women doing traditionally 'women's work' in a predominantly male work environment.

Not surprisingly, women find difficulty in accepting on the job training from men who believe that women have no place in non-traditional areas. One woman said 'No one wanted to train me, they thought I was a dumb girl, shouldn't be here . . . I have to be twice as good to be thought as good [as the men]'. Men don't like women to do things well. They admit to 'feeling threatened' if a woman does a job as well or better than men (*Frontline*, 1993).

Often women who choose non-traditional areas of study and employment have considerable support and encouragement from family, especially fathers and brothers, and frequently members of the family are involved in trade areas (Kuiper, 1986). Dillon (1986) commented that boys felt threatened by girls entering trades education and this

*... does not augur well for future male acceptance of more women in these areas, when today's students become tomorrow's fellow workers. Nor*

*does it suggest that males would be supportive in the home for women who wished to enter these jobs (Dillon, 1986:107).*

Even though this was written in 1986, the quotation remains relevant today. Women are seen as a threat both at work and at home and, as discussed by one of the tutors earlier, they are open to violence as well as support.

## EMPLOYMENT PROSPECTS

Male employers give many reasons for not employing women in non-traditional work. Usually these are conservative and based on sex role stereotyping. Kennedy (1987:118) states

*If employers are reluctant to admit [women] to skilled jobs, and if skilled male workers protect their monopoly, then women remain marginalised on the edges of skilled work.*

An issue often brought up when looking at women in non-traditional trade areas is the fact that women cannot do 'heavy' or 'dirty' work. Kuiper (op.cit.) found that in fact they work harder, are often more conscientious about workplace safety and are aware of their physical limitations. They tend to use brains and leverage instead of brawn to do the job, using mechanical assistance and lifting techniques more often than men do (Martin, 1988; Tetawa, 1999). Women are aware of the work demands of non-traditional work and physically prepare themselves with exercise programs (Martin, op.cit.).

The career counsellor's role is critical in any attempt to broaden the career pathways of women and the attitude of career counsellors to girls entering non-traditional areas of study affects the promotion of these areas to girls and the availability of information about non-traditional careers (Flowers, 1995; McQueen, 1992). Knowles (1997: 2) comments that

*It is pointless blaming employers for not hiring female mechanical engineers or carpenters if no women apply because, as girls, they had never been given the widest possible career options.*

## **Child Care and Transport**

Childcare was not identified as an issue in our research. However, in the literature it is identified as a critical determinate of women's ability to participate in post-compulsory education and is one of the most significant barriers affecting women students (NCVER, 1993; Pocock, 1987; McQueen, 1992). Trades courses are often run between 8.00 am and 5.00 pm (simulating employment hours) and do not take account of school holidays and family responsibilities (NZCTU, 1998). Many Aotearoa/New Zealand tertiary organisations have excellent early childhood education centres, but there is often a waiting list and a high cost to the user. In using childcare centres, women frequently have additional transport costs.

## **Organisation Training Barriers**

As well as the personal and societal barriers, women face other barriers including curriculum content, physical environment and organisational culture. Horsfield (1988:185) states that:

*A number of reports have pointed out that tertiary institutions have made little effort to ensure that women are more visible in course curricula, to remove male bias from the course structure, curriculum content and teaching styles . . .*

Ten years later, comments made by mature women students in University of Waikato bridging courses 'expressed frustrations regarding timetabling, limited course options, difficulties acquiring course prerequisites, inadequate financial assistance for part-time students, unavailability or cost of adequate child care and complexities of pre-enrolment procedures' (Marie, 1998).

## **Teaching and Learning Environment**

Kuiper (1986) suggests that tutors can provide a great deal of support to women apprentices, particularly in providing a classroom climate that encourages all students to accept each other. However, sometimes the attitudes of those who are responsible for planning and teaching should change so that women feel welcomed and valued on trades courses (Department of Education, 1989).

Women are often reluctant to take on trades education, both because they would be working in a competitive rather than co-operative environment where both tutors and students disapprove of their presence' (Kennedy, 1987:117; Flowers, 1995). The lack of women as role models and mentors is also often seen as a barrier. An effective role model helps women to feel that they are not trying to do something alone; they see someone who has succeeded in their study and work area (Narraway and Erenstrom, 1991). The scarcity of women tutors in non-traditional areas is counterproductive in attracting women students. The lack of other women on a course can also put women at a great disadvantage. Lantz (1982, cited in NCVET) talks of 'critical mass' which, to be effective, should be between 15% and 20%. Spender (1989) focused on the 'invisible' woman in education experiencing discrimination, undervaluing and exclusion. However, when women enter non-traditional areas they often become clearly visible, because of their rarity.

Women who have come into the classroom as trainees and have already been working in a male environment have, in many cases, already developed strategies for working as a minority. They have realised that they would have to adjust, because the environment would not change. One of the strategies often taken by women who had grown up with brothers was to become 'one of the guys' (Kuiper, 1986:3). One strategy favoured by women who were less accustomed to working with men was to withdraw and not retaliate. Meanwhile, those women students who have not previously worked in a male-dominated area could be disadvantaged.

Women work harder in the classroom and in general do better in exams (Kuiper, 1987; *Broadsheet*, 1995; Bright, 1997). Kuiper states that when women are part of a minority they are highly visible, especially if they fail. The question of visibility is important and as one female student said, '. . .if a girl fails it's because she's a stupid female, but the guys just shrug it off' (Kuiper, 1987:4).

Kuiper (1986) suggests it is desirable that, where possible, more than one woman student should be placed on a trades course, and this is backed up by Kennedy (1987). She states that women often lack the confidence to tackle male-orientated trades 'because they could find themselves lone intruders in an environment in which both tutors and students disapprove of their presence'. Jo Worth (*Broadsheet*, 1995) attended

a year-long carpentry course and was one of only two women on the course. The two women mostly kept to themselves.

### **Language**

Language is identified as an issue in the literature on trades education and work. The use of human body parts to describe tools, work practice or machine parts can be viewed as sexist (Flowers, 1995; McKinnon *et al*, 1995). Exclusive language, including the constant use of male pronouns, ie him, his, can deny the presence of women. Language in the workshop can also produce problems (Kuiper, 1986). This includes not only the minor verbal byplay and 'jokes' but also the overt harassment.

### **Discrimination and Harassment**

It is difficult to change attitudes, which reinforce gender stereotyping, and protectionism in the workplace and training (Martin, 1988; Stevenson, 1986; VTC, 1988; Catherwood, 1985). One motorbike mechanic talked about the harassment from workmates who said, 'You're a woman, you are not going to make it'. Speaking of her own experience, she said, 'Sometimes I feel there's not much point in [continuing], but I feel determined to see it through, even if it's just to tell them to stick it'. She often felt 'left out' and said, 'I have to prove myself, I have to be twice as good as a guy to be considered as good'. This is a common theme in women's trades education experience (*Frontline*, 1993).

Sexual harassment in the workplace is an important issue, as is shown by the literature. It is the third most reported form of harassment after disability and race in Aotearoa/New Zealand in 2002 (Human Rights Commission, 2002). Women trades workers are more likely to suffer not only sexual harassment but also isolation, discrimination (Kuiper, 1987; VTC, 1988) and employment harassment aimed at women simply because they are doing a 'man's job'.

There are many examples of harassment given throughout the literature. We will develop this perspective later.

## SUCCESS STRATEGIES

When making the decision to take up a trades career, family encouragement and support was very important (Kuiper, 1986; VTC, 1988; Flowers, 1995). The presence of male siblings, sympathetic employers and a strong determination to succeed were major factors. Kuiper, when discussing her research on women apprentices in non-traditional areas, refers to women who enter highly non-traditional areas such as carpentry and automotive engineering as 'pioneers', and states that 'they are usually highly committed and determined, setting new standards for their male co-workers' (Kuiper, 1987:2).

Narraway and Erenstrom (1991), in their discussion paper *Role Modelling for Women in Non-traditional Vocations*, also refer to pioneers in trades areas and discuss the importance of such pioneers as mentors and role models.

Setting the right climate in study areas is very important. This involves establishing a co-operative learning environment with a climate where women are valued and empowered, ensuring women appreciate the usefulness and significance of assertiveness skills, and setting up a group contract which may include: no bullying, no put-downs, speaking without interruption, use of 'I' statements, no sex-based harassment, the use of non-sexist language, respecting personal space, etc (Department of Education, 1989; Continuing Education Division, 1989). Ensuring that space, equipment and tutor attention is fairly shared, and the importance of the tutor in modelling acceptable behaviour, cannot be undervalued. Acknowledgment of prior learning by the student, tutor and organisation could mean that women would be able to spend more time on practical aspects of training and less on areas such as communication and organisation (Windsor, 1991; Kennedy, 1987; VETD, 1991).

Some women who enter trades education are mature students approaching a 'second chance' option (Bailey 1995; Martin 1988; Flowers, 1995). They have had previous paid and/or unpaid work, may have families, personal relationships and a mature approach to new experiences. This means that they often have different requirements from school leavers. Knowledge about the financial assistance available, scholarships and even subsidised or supported courses would help. Unfortunately, in the current user-

pays business environment of tertiary education in Aotearoa/New Zealand, this is less and less likely to happen. Looking at creative ways to provide transport, for instance car pools across tertiary organisations and setting up satellite programmes closer to housing areas, can help encourage women into any study in traditional or non-traditional areas. Identifying childcare facilities that are affordable and accessible together with flexible and creative timetabling, would help (Irving, 1996).

It would appear that there is a case for 'women only', 'catch up' and 'Try a Trade' type courses. Such courses could include practical tool and machinery use, basic mathematics and technology, and work practices. An understanding of power and authority within the workforce both in the hierarchy and between the sexes, discrimination and how it operates against women, and the specific problems associated with women in the workforce would also be helpful to women (Huston *et al*, nd; Stevenson, 1986; Continuing Education Division, 1989; McQueen, 1992). Safety in the workplace, how to deal with sexual harassment, an awareness of the myths and stereotypes women may encounter and assertiveness would also be important parts of the content. Information on openings within industry and a developed knowledge of the changing scene in technology is valuable in encouraging women to try different work areas (Bailey, 1995).

Feminist theoretical perspectives on education suggest the establishing of a co-operative rather than competitive learning environment. However, this is not always accepted in the current, male-dominated, monocultural education environment, which is based on competition. Generally it is believed that women learn from other women's experiences and value being able to express their views openly in a safe and trusting environment. Research has also shown that women do not tend to study subjects in isolation but prefer to relate their learning to the human and social context (Kennedy, 1987; Reichert, 1996; Flowers, 1995; Coates, 1994).

### **Women-Only Courses**

Separate courses for women, run in a co-operative, collaborative manner, can be extremely supportive for women's learning. However, separate courses for women can also lead to 'ghettoization' of women's education - an educational apartheid with a high-status curriculum for men and an innovative but low-status system for women (Blundell, 1992; Coates, 1995). The lack of understanding by the organisation, tutors

and other students about the need for women-only courses can cause a 'backlash' of resentment against those involved in such courses (Pocock, 1987). There is also the ultimate reality that these students must eventually work as a minority in a male environment. This factor is often given as an excuse to not run separate courses for women. However, the literature shows that initial exposure to non-traditional areas in a safe and encouraging environment would give women confidence to face the realities of a male-dominated workplace (Coates, 1994).

Many consider that acquiring technical education is the key and the woman student can now obtain the required job. This assumes that there is equal opportunity within the job market. As already stated, evidence suggests this is not so and that before it happens there must be a change of values and beliefs among employers, employees and society in general (Bailey, 1995). The current economic climate does not encourage employers to step outside the traditional, either (McKinnon *et al*, 1995). Another important issue brought up in the *Shaping Structural Change* (OECD, 1991:14) document was that

*Occupational structures and the skill content of many jobs are undergoing profound changes. This creates opportunities for reducing occupational segregation and pay discrimination, which are sources of labour market rigidity and gender inequality.*

However, in recent years, with the development of the 'New Knowledge Wave' and innovations in business, it is possible that we could see employers take on new perspectives.

## LITERATURE SUMMARY

Gender distribution of occupations confirms that occupational segregation by sex remains a feature of the Aotearoa/New Zealand workforce. Overall, it is obvious that the income wage gap has not improved for women even within trades. Equity legislation has been ineffective in this area.

The number of women in trades education and work remains below 4% of the total number of those involved in trades. These figures have not improved, in spite of government incentives to encourage women into trades. Changes in the apprenticeship

system and the introduction of Industrial Training Organisations (ITOs) appear to have had little effect on the numbers of women.

Male-dominated trades inherently produce and reproduce hegemonic male-dominated organisations, which maintain the social order. This means that women need to overcome many obstacles and barriers if they choose to enter trades education and work.

Women's natural ability to do trades work is always questioned and their sexuality is seen as a defining factor for failure. Lack of previous experience due to gender segregated roles in compulsory education means that women do not possess knowledge and experience in technical areas. Culturally ingrained definitions of femininity and womanhood shape societal attitudes which exclude women in trades education. It is clear that sex role divisioning in Aotearoa/New Zealand is still prevalent. Protectionism in male-dominated work areas results in high-level resistance to women's involvement in the trades. This fluctuates depending upon society's needs, for example, women were readily included in trades work during the Second World War.

Curriculum content, physical environment and organisational culture can also be a barrier, as can tutors' conservative attitudes to female students. While tutors can provide a great deal of support to women apprentices by providing an encouraging teaching and learning environment, they do not always do so. Physical visibility of women in non-traditional occupations causes conflicts for male students and tutors, as women stand out. Men are often shocked by their presence, women are ignored or do not fit in.

Many women preferring co-operative learning environments are reluctant to take on trades education, where they find the environment is competitive and their presence is treated with disapproval. Sexual language, discrimination and harassment appear to be everyday events.

Women are assisted and supported in trades education when family and employers are encouraging and supportive. Female role models provided by pioneers and mentors are

important, as are 'women-only' courses, which can provide a co-operative learning environment that values and empowers women trade students.

Our research with women in trades education confirms many of these trends and themes and suggests that there has been no improvement in women's experiences. Having established that this is the case, other questions are raised. What is this trades culture that proves problematic for women? How does trades education fit into tertiary education structures?



*Chapter 4*

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**TRADES CULTURE IN EDUCATIONAL  
ORGANISATIONS**

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## A CLASH OF CULTURES

Trades polytechnics were initially set up to support the education of ‘tradesmen’, an education based on the values and beliefs of trades culture,<sup>21</sup> which is inherently white/European male, working-class and masculine-based. Trades teachers, usually men, often come from trades areas and carry this culture with them into the classrooms occupied mainly by male students. Workshop tools reflect this culture and are ergonomically designed by men for men’s use. Language also reflects this male culture; it is sexist and regards women as ‘other’. Sexist advertising material and calendars, together with degrading comments, ‘. . . invade [women’s experience] by distortion of defaced images of the female body, by hearing abusive language in which ‘cunt’, ‘slag’, ‘pro’ (and) ‘bitch’ are used with such alacrity to describe females [and] can only provide an unhappy and stressful work environment for women (Herbert, 1989:154)<sup>22</sup>. Dworkin (1976, cited in Herbert, op.cit.) argues that ‘because men were the engineers of this culture and had named all the words, women had had their values, perceptions and understandings defined for them . . . behaviour which was not experienced by the naming party [men] would remain nameless’ (ibid:160). This also relates to trades culture as women have experienced it in this study. This environment then, remains excluding of women and is male-dominated, individualistic and competitive.

Male culture is often reflected in the physical environment of trades-based polytechnics. Often buildings are square, solid and sparse. Classrooms are regimented sizes, with linoleum flooring, concrete walls and utilitarian furniture. Until recently, colours were brown, green or neutral for floors, furniture, walls and curtains. Now the occasional bright colour is used, but the angular masculine environment is maintained. Furniture is set out in rows, all facing forward – in the few classrooms where tutors have attempted to provide a more group-encouraging layout, the cleaners and other teachers frequently move the furniture back to the standard model. Technical workshops provide a replica of the workplace, with double story ceiling height, high windows and layout appropriate to their particular skill area. Noisy cafeterias, with sparse surroundings, often exude masculinity. Even staff areas in some polytechnics are similar and staff have often

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<sup>21</sup> Hoopes (1979) cited in Hess (1994:30), considers that cultural groups are those who share values, beliefs, aesthetic standards, linguistic expressions, patterns of thinking, behavioral norms and styles of communication.

<sup>22</sup> Even though this quote comes from research done in 1989, we have found that this sort of language is still used to control women.

claimed territorial areas for male occupancy. Although changes in education culture around consumerism, commercialism and market-based ideology have influenced polytechnics to pursue a more customer-friendly environment which is more colourful and corporate, this has not changed the energy and resistance one feels as a women entering trades buildings. One of Jesse's female students found that even the women's toilet had been masculinised. It 'had the seat up and had not been flushed' giving her a feeling of being 'unsafe'. Women from non-European cultures find educational establishments even more unwelcoming, since these are based on monocultural principles.

### POWER RELATIONS IN TRADES

The power relations in trades culture are similar to those in society generally and those replicated in education culture. Trades culture also has a long-standing tradition of protectionism, which supports a conservative approach to male-dominated work environments and sees women as alien to that culture. On entering the male-dominated trades area, men and women agree implicitly to abide by the customs and mores of the trades culture. This includes male, white, Western structures and beliefs which exclusively maintain levels and divisions of power which continue to elevate men's position and to subordinate women. A male, white European is already halfway to becoming the model tradesperson when he enters an apprenticeship. There is no similar position for women. According to trades discourses, women who enter the trades are, considered less than, or 'other'. This resistance to women is maintained in a variety of ways, as we have discussed, and it continues the exclusivity and protectionism which supports men in trades cultures.

While power in education organisations as a whole is a difficult concept to identify, dominance over women by men in trades education is often overtly recognised and articulated as normal. Friedan (1963:117) argues that,

*"Power-over" is a matter of dominance and subordination, of bending others to our will through a variety of overt and covert methods. It is the power of control; and while it can be exercised from both a position of dominance and a position of subordination, our attention is riveted on those who blatantly exercise it from a position of dominance, for it is then backed by threats of disruption and continuing acts of destruction.*

The incorporation of trades-based training into educational organisations has meant that the tradition of training apprentices, although very much centralised in trades work culture, has become diverted and taken on an educational as well as an industrial focus. During the 1980s, with the visibility of equal educational opportunity, trades culture was challenged to be more inclusive and less sexist. However, the effect of this challenge was for discrimination to become more covert and produce ‘natural’ acceptance of inequity.

Trades culture with lecturers who are expert in their area causes a clash of cultures between trades culture and academic educational culture. For many trades tutors, entering the world of academia is at best confusing and at worst alienating, though few would openly admit this. It has taken many years for trades culture, with its traditions, values and beliefs, to be ‘assimilated’ into educational culture. This is not complete. Conflicts are produced between traditional trades education, where training of an apprentice takes place in the work environment (paternal, skill-based and non-academic) and the academic environment of polytechnics, with their academic accountability and over-regulated qualification frameworks. The latter has produced difficulties not only for tutors but for students who are not academically inclined and are focused on practical rather than academic skills. This is an area for more research and is outside the scope of this thesis.

In many cases, the effect of trades culture being subsumed into educational culture has meant that dominant discriminatory practices become covert. This makes it difficult to expose inequalities and continues to place the responsibility on women to conform. The complexity and availability of positions for women in male-dominated trades becomes more dependent on women’s internal ability to resist the dominant discourses and discriminatory practices. Some women may have internalised the discourse of ‘power over’ to such an extent that ‘power from within’<sup>23</sup> is compromised and they have limited choices in the engagement of a positive and independent self-image.

Trades culture and masculinity are inextricably linked. Masculinity is so embedded in the very identity of trades that Star (1999:38) argues, ‘Masculine culture within the

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<sup>23</sup> ‘Power-from-within’ is the power of ability, of choice and engagement. It is creative; and hence it is an affecting and transforming power, but not a controlling power’ Friedan (1963:117).

trades maintains the power through the reproduction of masculinity and is inherent in work cultural and social practices. The male body is used to express this masculine culture and often used against women in a sexual way'. Masculinity, gender, sexuality and compulsory heterosexuality are controlling factors which daily affect the experience of women studying or working in the trades, as our research confirms.

Connell (1985, cited in Star, *ibid*) argues that conventional physical markers of masculinity, . . . 'like muscles, repressed emotional states and academic [or skill] achievement – are hard won through multiple practices that create male bodies and masculine behaviours'. This means that social interactions within male-dominated trades are always based around heterosexuality, the importance of male bodies and sexuality in which women's position is determined as one of sexual availability and subjugation to men. Resistance to this discourse positions women as 'other'. However, women do not have to resist, they just have to be biologically women to be considered 'other'.

The longstanding nature of male hegemonic dominant discourses in educational organisations has produced an acceptance of masculinity as the norm, which has become unquestioned. For women working and studying within an organisation based on male-dominated hegemonic discourse, it is highly possible to feel and be seen as alien and to be considered 'non-traditional' or not normal. This is particularly the case in trades education, where women are a minority.

#### WOMEN ENTERING TRADES CULTURE

Polytechnic statistics show that there are fewer women in some male-dominated trades areas than there were five years ago. Images in current media continue to show women transgressing gender lines when they participate in male-dominated work areas, but still present them as sexually available. For example 'Rachel gets to play with the big boys' toys' (*The Dominion*, 7 March 2001:3) 'celebrates' a woman transcending the occupational barrier. This story concerned a 23 year old mother who was the first female apprentice in 72 years to be taken on by a local company.

Following the pattern of many women with a desire to enter male-dominated areas, Rachel Garratt gained experience during her childhood when she rebuilt numerous engines in her 'dad's garage workshop'. In one photograph<sup>24</sup>, she is pictured in the centre of a large tyre, holding an upright, oversized spanner. The effect is one of making her look like a little girl, while the spanner conveys phallic symbolism.



Within the trades women are outsiders, unwanted, unwelcomed. The culture that women bring with them is alien to the environment or perhaps the trades culture is alien to women's experiences and lives. Harker (1979, cited in Bishop and Glynn, 1999)

considers that when the cultural and value systems differ from those who developed the education system it will impact on educational achievement. He goes on to say that this creates pressure to change the minority cultures and values or to restructure the education system, which is highly unlikely to happen in favour of 'minority' cultures.

As Pakeha researchers, our networks and methods have attracted almost all Pakeha participants. This produced a significant gap in the research, which would be better addressed by Maori women. Maori and Pacific Island women have a significant role in trades areas. Modern Apprentice statistics at 30 June 2002 show that of a total of 173 women apprentices 42 (24%) are Maori and 9.8% are Pacific Island women.

## MAORI IN TRADES

Historically, Maori became involved in the trades through the Maori Trade Training system. However it is debatable how culturally appropriate some of the systems were. Initially, Maori trainees were brought into the training environment centred around the main cities, where they lived in hostels, worked and studied together and were supported by local kaumatua. These systems were financially supported by government agencies.

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<sup>24</sup> Photograph by Mark Round.

It is interesting that although this was specifically designed to bring Maori into this area, statistics show that Maori still tend to be over-represented as labourers rather than as qualified trades people. With changes in the apprenticeship system and the introduction of Industrial Training Organisations, the financial responsibility for initial trade education fell upon the individual student and employment prospects became very limited. Maori trades training has also been developed to some extent in the marae environment. However, Maori Trade Training was disestablished and resourcing this area still proves problematic.

## EDUCATION CULTURE

The continuum of women's experiences in trades culture ranges from celebration of women's courage and determination to transverse social, academic and political barriers to their experiences representing the tip of the iceberg in terms of women's discrimination in educational organisations. Part of this discrimination is visible but even this is clouded by a shroud politically correct platitudes. Underneath, hidden under the 'water' is an underlying discriminatory practice, which subsumes women's ways of working and controls women themselves by labelling them as different and therefore not 'normal'. This is called educational culture.

*Chapter 5*

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**WOMEN IN TERTIARY EDUCATION**

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## *A Metaphor . . .*

This picture represents for us the dichotomy of women entering a male-dominated education environment. Here is the wonderful flowing female form contrasted with the unyielding harsh environment of steel, brick and concrete. The only way that the female can survive in this environment as represented in the photograph is to have the water as a protection - this represents the buffer, women need to survive. This enables her to flow, to move within the harsh, immovable surroundings, but never to affect the surrounding environment which is literally set in concrete, thus representing an almost total resistance to change.

However, the protecting water metaphorically represents the ability of life in that environment, expressing the strength and courage of the women in the trade areas: how they supported each other; how they laughed with each other and at themselves; how they found ways around the barriers and continued their work. Their lifeblood was the 'water', womb-like, in allowing them the flexibility to be themselves in such a hostile environment.

So too are our women's bodies and minds set in the concrete of academia. Our movement is restricted in a sometimes cold, unmoving, unnatural environment for women, which is based and developed around male hegemonic structures and culture.



## WOMEN IN THE TERTIARY EDUCATION ORGANISATION

Masculinity and male-dominated hegemonic systems of education, with their effect on power relations, gender and sexuality, are pivotal to our analysis of women's experience both in trades education and tertiary education. We need to recognise the existence of gender discrimination in social relations in Aotearoa/New Zealand as a whole and that this is reproduced in educational systems, resulting in gender and power imbalances in tertiary education. Let us then look at how 'successful women' are perceived in Aotearoa/New Zealand.

*Recent high-profile female success stories indicate that women are perfectly able to help themselves get whatever they want . . . its more likely that outdated and entrenched views of women's roles will be found in blue-collar workplaces, and poorly educated households, than among the corporate workforce where educated, skilled and talented women are also getting better at their own advocacy' (Editorial, Evening Post, 5 May 2001).*

While we agree that educated women in high-profile corporate positions are 'getting better at their own advocacy', we would question the fact that outdated views remain only in blue-collar areas and poorly educated households. The editorial assumes that educated, skilled and talented women have no barriers to high-profile success. However, our investigations and experience as women in education, where women are educated, skilled and talented, show that even the most assertive of women experience the disadvantage of organisations that are based on hierarchical, male hegemonic discourses and practices. The editorial implies that beliefs about discrimination against women or stereotyped women's roles are outdated and that these now only exist amongst the poor and uneducated. This ignores the social inequality still present and inherent in Aotearoa/New Zealand society as a whole and in tertiary education organisations.

It is possible also to give examples of Maori and non-Maori women who have high-profile positions in Aotearoa/New Zealand. However, this does not represent the majority of women and our research would indicate that there is a price these women have to pay for their success. We are led to believe that if women do not become successful in their own right it is their own fault. According to previous Member of

Parliament and researcher Phillida Bunkle, 'Women in public positions are still a lot more vulnerable to personal attacks than men' (*Evening Post* 4 July 2001:5). Sue Watson argues that despite the rise in female leaders it would be misleading to look only at a few high achievers 'In some ways it is easier for women to achieve but that definition of achievement is probably as narrow as it has ever been' (*Evening Post*, 4 July 2001:11).

Issues of gender and sexuality pervade women's experience both in society and in education, producing barriers that obscure women's path to success and economic independence. Disregard of the feminist agenda and the normalising of men's culture present issues around gender, sexuality and power relations that invalidate women and enhance heteronormative and male hegemonic dominance.

#### ECONOMIC FOCUS—A DISADVANTAGE TO WOMEN

Changes in tertiary education in Aotearoa/New Zealand over the past twenty years have been characterised by consumerism, commercialism and competition, have challenged current educational culture. The term 'New Right'<sup>25</sup> is now so embedded in our educational culture and has become so much part of the accepted norm that we no longer refer to the term by name. Codd (1998:5), discussing the pursuit of 'quality' in educational institutions, considers that institutional culture 'values efficiency, effectiveness and controls; it devalues interpersonal trust' and he argues that 'The quality of education is reduced to key performance indicators, each of which can be measured and recorded'. The implications of this are that all relationships, social, economic and political, are 'fundamentally contractual in kind', forming a basis for new values within educational culture.

Market-based ideologies can determine student expectations and set up employment-based expectations while ignoring the educational development of the student. Contradictions appear as a result of a controlled qualification-based system that provides somewhat of a challenge to educationalists, particularly those who strive to meet what they see as the need to produce a 'critical thinker' in an equitable environment, one who is prepared to be an essential part of an ever-changing society.

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<sup>25</sup> We used to think of market based economy as New Right, it has now become so much a part of the accepted norm that we do not even give it a label

Changes in educational culture appear to be paradoxical. While working towards producing student centred teaching methodologies, it is expected that market based ideologies are prioritised. For women as a culture,<sup>26</sup> this can mean alienation from an education environment which is based around values which are considered to be masculine, for example competition and individualism.

Chait (2001) argues that students' expectations are reflecting these changes and the needs of education have become 'irrevocably immersed in the market place'. The language of the 'New Right' discourse in Aotearoa/New Zealand is embedded in students' vocabulary, where students voice issues of 'excellence' and 'quality'. They see themselves as 'customers' who deserve a fair deal and to whom a quality product (or qualification) should be delivered and guaranteed (Arlidge, 2001). This is the case for women and men students, who both become entangled in these expectations.

Market-based philosophies have changed the face of educational culture. In the educational environment, competing for both funding and students means that economic needs, funding requirements and expectations are often made a priority. The challenge to polytechnics is obtaining a balance between the requirements of the market place and the needs of education.<sup>27</sup> However, the main source of funding for polytechnics in Aotearoa/New Zealand is still government funding. Therefore education is very much dependent upon political influences.

Effective learning and teaching has now also been globally linked to a need for a knowledge economy (Watkins *et al*, 2000:96). The teaching environment must accommodate learners who feed a knowledge economy, are active, strategic, cooperative, collaborative, motivated critical thinkers and goal setters. However, the characteristics of graduates still appear to be gendered and favouring masculine values of competition. This could exclude, women and produce obstacles to achieving in such an environment.

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<sup>26</sup> This notion is discussed and developed later.

<sup>27</sup> That is, when we have redefined education

## EQUITY FOR MAORI AND PACIFIC ISLAND WOMEN

The recent Tertiary Education Strategy (Ministry of Education, 2002) developed under the current Labour government clearly states a government commitment to enhance the strategic capability and robustness of the education system as a whole. The need to recognise the unique position of Maori as Treaty partners and the need to develop a knowledge society by ensuring that New Zealanders are able to participate effectively is highlighted in this strategy. The strategy also addresses issues relating to Pacific peoples' 'capability needs and skill development that ensure their success and development' in a knowledge society. Overall, the strategy is designed to 'strengthen research, knowledge creation and uptake for our knowledge society' on behalf of all people (ibid:16). The implications of this strategy are manifold for Maori and Pacific Island women and outside the scope of this thesis. However, it is important to note the direction that government has taken, especially for Maori and Pacific peoples, as this could well have an influence on educational culture in the future.

The under-representation of Maori in tertiary education in Aotearoa/New Zealand is a direct result of monocultural organisational practice. Even though the last twenty years have produced many changes by and for Maori in teaching of Maori-based education and development, Western-based educational organisations remain virtually unchanged. This is despite the claim that .

*The Treaty of Waitangi, the changing roles of women and men, the growing proportion of our population from Pacific Islands nations, our social and cultural diversity, and the increasing inclusion in our communities of people with disabilities have made us aware of barriers to participation and success in education which need to be removed*  
(Ministry of Education, 1994:34).

In spite of the fact that most organisations in Aotearoa/New Zealand purport to follow the principles encompassed in the Treaty and to view Maori as being in partnership with tau iwi, in practice this rarely happens.

As a whole, educational culture continues to develop through economic policies of consumerism, market-based ideology and 'masculine' values. According to Hyman (1994:1), feminism has made 'depressingly little impact on economic theory or on

economic and social systems and policies in Aotearoa/New Zealand'. Feminist critics of this system appear to have gone unheeded and the consequences are that since women are more economically disadvantaged compared with men, makes access to education is more difficult. This is particularly so for Maori and Pacific women and women with disabilities. As a result of the focus on economics, equitable education is in even more danger of disappearing. Educators could be optimistic that the new strategies will involve greater numbers of Maori and Pacific Island students and improve their educational access, participation and success.

### A FEMINIST APPROACH

For equitable practice for women and Maori and people with disabilities to become a reality, we believe an overall feminist approach, which is more radical, needs to be employed. If we are to change women's experiences in education we need to look at the implications for women. Tickner agrees that

*A feminist perspective is crucial in helping analyse and solve the complex problems of intranational and international conflicts and inequalities, and environmental crises . . . [this] can help us . . . as we attempt to build a more secure world where inequalities based on gender and other forms of discrimination are eliminated (Tickner, cited in Hyman, 1994:230).*

However, while a feminist approach may help to analyse inequalities in both economics and education, this approach has yet to be integrated into and valued in mainstream analysis in both areas. Until this happens, it seems that women, Maori, Pacific Islanders and people with disabilities will continue to be disadvantaged by an educational system which is based on individualism, competition and market-place ideology. Analysis does not necessarily lead to action.

The change in economic focus from full government funding to consumerism has done little to affect the focus of white, Western, male-dominated culture in polytechnics in Aotearoa/New Zealand, which are still largely monocultural and where 'maleness' is considered the 'norm', in spite of some changes in the number of women in management in these organisations. The implications for women in a male-dominated educational culture, as well as being economic, are centred around conflicts with male hegemonic culture, which uses gender, sexuality and power relations to maintain the status quo.

Gender, sexuality and power are crucial factors that are inextricably linked to women's experience in education, causing conflicts for women teaching and learning. As we have discussed, the effects of education and trades culture come together to produce even more conflicting experiences for these women.

## GENDER AND SEXUALITY

The increased presence of women in management in polytechnics is purported to show equality, and supports the trend to downplay the need for a focus on women's issues. Managers who are women are expected to act according to 'male' or 'asexual' roles.<sup>28</sup> Whilst there has been a limited acknowledgement of the usefulness of feminist analysis, there is a popular belief that there is no longer a need for this and that feminism is a 'dirty' word which belongs to radicals of the past. These beliefs result in women's and feminist theoretical perspectives being further marginalised.

Women in educational management find themselves in increasingly complex and contradictory positions and power relations, especially if they have a political commitment to feminist practice. Women managers now appear to be less supportive of women than they were when a feminist agenda was more overt, and if non-managerial women complain they are often seen as part of the 'problem'.

The personal toll and cost in the non-recognition of women's subordinate position is kept invisible through the male-dominated hegemonic discourse<sup>29</sup> present in educational organisations. It is now complicated by managerialism formed from New Right philosophies where educators have become ensconced in the material business world and 'education' has been redefined as a commodity. This has also been our experience as educators.

One consequence of change is that the 'feminist agenda' which was prominent in the 1980s is now virtually non-existent and leads to much confusion for women in

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<sup>28</sup> The concept of women being expected to act in male or asexual roles is expanded later.

<sup>29</sup> In this case, discourse refers to 'a historically, socially and institutionally specific structure of meaning(s); statements, terms, categories, beliefs and assumptions about the nature of individuals' and how they should behave. Such meaning systems are always embedded in organisational and institutional practices as well as our language.

management roles. If acknowledged at all, radical and liberal feminist theoretical perspectives are deemed to have failed or to hold insufficient explanations for useful analysis of women's experiences. Clearly, this is one of the reasons for the transformation of feminist theory into post structural feminism.

Post structuralism can be useful and gives the opportunity to examine the complexities of experience and language. For example, meaning, language and subjectivity can only be created within available discursive fields and practices<sup>30</sup> (Weedon 1987). In the case of education, these are determined by male hegemonic discourse and practice, which confuses women's choice of subject position and identity. O'Neill (2002:15) argues that 'Such discourses contribute to or help constitute our subjectivity (our personal identity) - this happens through the way we internalise the meanings embodied in discourses and the way these discourses embody or uphold particular kinds of power relations in our society' or, in this case, education. This, she says, 'means that individuals are discursively constituted as individuals - male, female, gay, middle class or Maori - through the discourses they are continually and actively negotiating'. This is rather like a tapestry woven into cloth, with its threads and hues made in a particular way and constructed into a garment for that time, and then changed, deconstructed and remade into another garment which is the woman herself, in the shape of a particular discourse, in a particular moment in time.

Inspired by the complexities presented by post structural theory, we were at the same time concerned. While providing an explanation for the complexities present in women's experiences it is also possible to lose the essence who women are and the strength of a women's culture. '*Altering States*' is a poem we wrote in response to our explorations of post structuralism and women in education.

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<sup>30</sup> '...discursive practices are real or material as well as being embodied in or signified by language. . . . We constitute our knowledge and ways of understanding the world through the dominant and non-dominant social meanings we encounter, which help us to make sense of the world' (O'Neill, 2002:15).

## ***Altering States***

***Imagine a sphere  
changing shape,  
no longer a sphere?  
With millions of light beams  
travelling to the centre,  
the centre is moving,  
forming other centres,  
developing.***

***Now  
the light beams are attracted  
to them.  
Other beams appear, different  
hue,  
perhaps they are too linear?***

***Movement,  
Energy.  
Some disappear and reappear,  
are they the same?  
Re-shape,  
re-centre,  
multiplicity - plurality?***

***Where, who are the womyn?***

***Inter-acting  
with each other, they change  
their inter-action, some more  
powerful?***

***What is power? Wasn't that taken?***

***Who says?***

***Language – discourse –  
deconstruction.***

***Those that appeared to collect  
together,  
now they are a-part,  
opposed, reformatted, reformed -  
unpicked?***

***Where are the womyn?***

This post structural approach could help to explain some of the conflicting results in our research, where a number of the research participants accepted, or did not acknowledge, some of the discriminative practices. However, we are reluctant to take this analysis further than an acceptance of the usefulness in this context, as taken to its inevitable conclusion one could assume that women's experience as we present it could be so deconstructed as to be meaningless for the women. This is not our intention in this thesis. Rather, our intention is to validate the women's experiences and although we want to recognise the complexities involved, we want to present those experiences as real and valid. In our view, a post structural approach would deconstruct women's experience by questioning the notion of 'truth' and making the experience less meaningful, thus reducing the subjective impact we want to achieve in the research.

How then does gender and sexuality link to women's experience in education? From our investigations so far, it is clear that society and educational organisations have division of gender as one of their main dichotomies. The dominant discourse in education constitutes male as the 'norm' or natural and women as 'other', while at the same time claiming that educational organisations are fair and equal. This has huge implications for the position of women, who are seen primarily through their gender and sexuality. Our view of gendered culture in education fits well with that of James and Saville-Smith (1989:7), who argue that gendered culture is

*. . . a culture in which the intimate and structural expressions of social life are divided according to gender. Notions of masculinity and femininity are a pervasive metaphor, which shape not merely relations between the sexes, but are integral to the systematic maintenance of other structures of inequality as well.*

Language used and produced within the dominant culture shapes and defines who women are and their experiences. Either the language itself or its meanings and implications are gendered.<sup>31</sup>

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<sup>31</sup> Our agreement with this definition does not ignore the overriding importance of race, or the implications of other factors such as class and disability in New Zealand society, but rather serves to provide a focus of gender and sexuality as a central part of the thesis.

Gender, Davies argues, is likened to being a competent member of society, and is dependent upon our capacity to attribute to others and to ourselves the 'correct gender'. Common and accepted assumptions of gender and sexuality are a 'by product' of social and linguistic structures in society. Meanings that we give to gender and sexuality are based upon the bipolarity of being male or female (Davies, 1989:x) and on women's heterosexual availability. This has huge implications for women and girls in the educational environment and means that there is a consistent and unchanging link between sexuality and women's experiences in education. In tertiary educational organisations, male/female dualism and bipolarity are constructed and reconstructed in male/female relations and educational systems. Burrell and Hearn (1989:3) argue that 'enter most organisations and you enter a world of sexuality'.

Gender and sexuality can be seen as 'conceptually distinct [but] they are also clearly related' (Burrell and Hearn, 1989:2) and in educational workplaces gender and sexuality norms are perpetuated through the values and ideas of heterosexuality<sup>32</sup> as the norm. Hetero-normativity and hegemonic masculinity, which pervade the educational environment, have negative implications for all women (and for men other than heterosexual men). Connell argues that there is an ordering of expressions of femininity and masculinity through the inter-relationship of men and women which is also centred around a single structural fact, the global dominance of men over women (Connell 1987:183). Male hegemony is closely linked to heterosexuality and heterosexism and does not only relate to male sex roles but is a cultural ideal or model which may or may not have a great deal of basis in real life (Court 2002b: 24). The practice of male hegemony and hetero-normativity has a controlling effect on women in tertiary education, their behaviour and experiences, and their economic, academic, professional and personal success.

Even though most mainstream organisational theories ignore sexuality as a tool for analysis, Hearn and Parkin (1983 cited in Acker, 1991) maintain that sexual domination is embedded in organisations and with links between sexuality and male domination. The implications for women working in an environment in which sexuality and male domination are discriminating factors, include: compromises to their effectiveness in

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<sup>32</sup> Heterosexuality is not something that is innate, but is rather a set of behaviours learned through cultural and social practices.

their work; difficulties in identifying as women; marginalisation; silencing; invisibility; exposure to sexual harassment; feelings of disempowerment and fewer promotional opportunities. Gendered roles normalise male culture, reduce the choices for women, and have the effect of maintaining institutional gender imbalances.

In spite of the dominance of maleness, Acker (1991) argues that both gender and sexuality have been 'obscured through a gender neutral, asexual' discourse committed to the dominance of male culture and heterosexuality. This is particularly the case in tertiary education, where it is claimed that promotions are offered on merit, regardless of gender and that this is evidenced by the presence of women in management. Connell (cited in Blackmore, 1999:128), argues that, 'the capacity of hegemonic masculinity to deflect attention away from itself has been a major barrier to effecting change in gender relations'. Male-dominated organisational culture is often 'described as "how we do things around here" - unproblematically constructing the "we" as the norm' (op.cit.:130) and continuing the exclusion of women who are not and never will be, physically male.

Eveline (cited in Blackmore, 1999) argues that it is most effective to keep the opposition to change intangible. This not only promotes the continuance of maleness in a system but also ensures that women are subordinated within it. She argues that to concentrate on women's disadvantage adds to their lack of advancement, and suggests that we need to be focusing on male advantage rather than women's disadvantage.

Discourses of denigration (of women) have huge implications for the power relations between men and women working in education and for available choices for women. Women's style of working, involving consultation and delegation, is 'perceived to be a weakness' and women leaders who practise 'more democratic (rather than autocratic) styles of management [are] used as examples to perpetrate myths about women's incapacity to manage' (op.cit.: 134).

Pressure to be more 'masculine' has resulted in changes in women's behaviour. In attempting to position themselves as female, women working in an environment where 'maleness' is the norm find themselves in conflict with their personal identity as women. They often take on a 'one of the boys' position, changing their behaviour to align themselves with male behaviour so that they are seen as included and/or

professional. In tertiary education, this is most obvious with women managers and women working in the trades environment, both of which are very male-dominated areas. Women internalise masculine practices, rejecting their femininity to bolster up hegemonic masculinity discourses. Weiner in Blackmore (op.cit.) describes this as women being 'social males' and 'queen bees'. Women managers who take this position are often isolated and are described by colleagues as 'aggressive, dominant, competitive, individualistic and non supportive if not antagonistic to other women...often gathering around men and excluding other women' (Wiener 1995b, cited in Blackmore, op.cit.:192). Male bonding behaviour is apparent in management and the trades: jokes, loud voices,<sup>33</sup> interruptions, and put downs are used to include, but at the same time marginalise, women. Harlow *et al* in Blackmore (op.cit.) affirm this to be the case. Women often take part in, and thus condone, this type of offensive behaviour, for fear of being seen to have no sense of humour or as 'different'. Labelling women 'feminist', 'man hater' or 'lesbian' are often used in a controlling way. Women's fear of this happening makes them either compliant to the requirements of compulsory heterosexuality and male domination, or, as Marshall (1993, cited in Blackmore, op.cit.) argues, forces them to develop a politics of denial about discriminatory practices.

The difficulties for women positioning themselves as female in a male-dominated organisation are different for non-feminist and feminist women. Landrine and Klonoff (1997) found that non-feminist women, lacking feminist schema for understanding sexism, might find sexist events stressful because they interpret them as their own fault. This may lead to a degree of self-blaming, and may show itself in physical and psychiatric conditions, particularly depression. On the other hand, 'feminists may find sexist events stressful because they are inherently unfair, and their appraisal rating may increase with the degree of blatant injustice entailed in sexist discrimination' (Landrine and Klonoff 1999:118). However, these researchers also consider that feminist schema may act as a buffer (op.cit.:19).

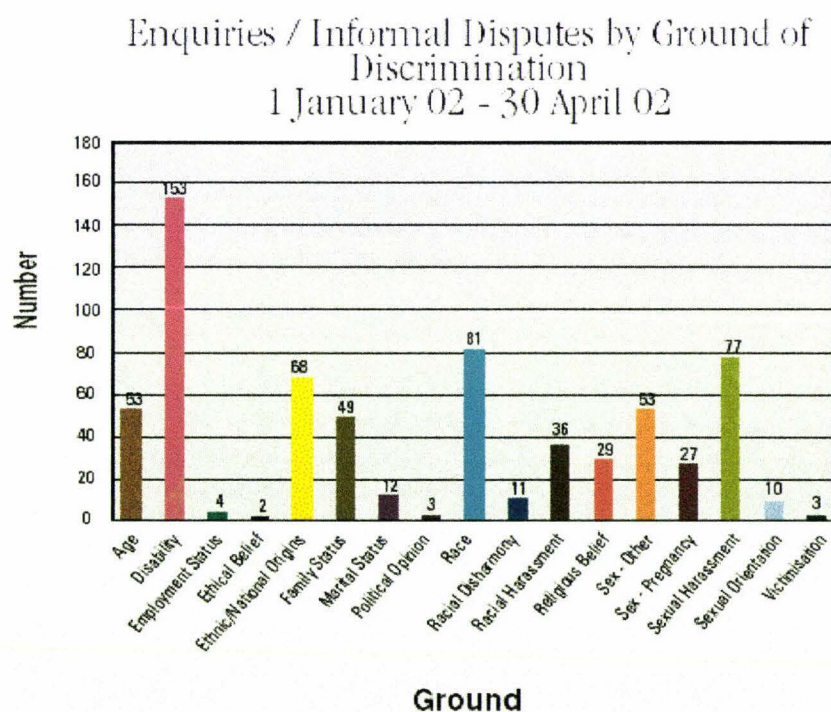
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<sup>33</sup> One woman lecturer in the trades found that to be heard in a conversation she had to use a louder voice than usual or she would be talked over and interrupted. She said, 'I don't like who I have to be, sometimes' (See page 118).

## SEXUAL HARASSMENT, MARGINALISATION AND SILENCING

Sexual harassment, marginalisation and silencing are some of the consequences of links of gender and sexuality being used to view women as heterosexual objects, both in education and the trades. The consequences of sexual harassment<sup>34</sup> are numerous and varied and act as a control for many different kinds of women, irrespective of class or colour or financial position. Herbert (1989) argues that sexual harassment reminds women of their sexual and economic vulnerability and undermines their autonomy and personhood. With the introduction of Equal Employment Opportunities policies and legislation such as the Human Rights Act 1993, there has been in Aotearoa/New Zealand an increased awareness of sexual harassment in educational organisations. However, statistics still show sexual harassment to be the most common grounds, after disability and race, for enquiries or informal disputes in employment (Human Rights Commission, 2002).

Human Rights Chart<sup>35</sup>



<sup>34</sup> Sexual harassment is defined here as any verbal or physical behaviour of a sexual nature, including the misuse of visual or written material that is unwelcome or offensive to the receiver and that is either repeated or of such a significant nature that it has a detrimental effect on a person ( Human Rights Act amendment 1993). However, it needs to be recognised that sexual harassment is often normalised by male hegemonic discourse and that this definition is not accepted by some men in organisations.

<sup>35</sup> Taken from *Tirohia*, 2002, Issue 2.

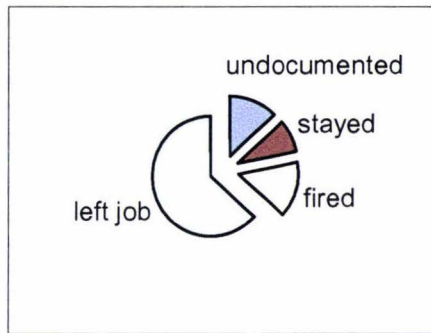
Women continue to face sanctions for transgressing 'rules' of dress and body movement. Sanctions for non-compliance with male standards, for women, both lesbian and heterosexual, result in social and economic sanctions. Even so, the gendered bipolarity of male hegemonic organisational structure is not seen as responsible for the occurrence of sexual harassment. Rather, sexual harassment is viewed as a 'deviation of gendered actors [and not] components of organisational structure' (Acker, 1991:163). It is also seen as an inevitable consequence for women entering a male-dominated culture, and can have devastating effects.

Research by the Human Rights Commission (2000) showed that victims of serious sexual harassment suffered from emotional, physical and psychological harm. The degree of this varied and tended to be more severe when harassment took place over a long period of time. Women often felt guilty and dirty and they internalised the blame. In many cases, women's mental health was affected by depression, anxiety and feeling suicidal.

*Looking back, I see this as my breaking point physically, emotionally, mentally. I feel absolutely lost. When will it ever end? I want to run away, give up. I have had enough. I'm sick of crying. My body hurts. I don't think I have any more to give. I feel battered* (Human Rights Commission, 2000:38).

Women as victims of sexual harassment suffer physically with, for example, sleeping problems, eating difficulties, nausea, weight fluctuations and headaches. The harassment detrimentally impacts on their work. In 63% of the reported cases between 1995 and 2000, the impact was so severe that 'complainants felt they had no alternative but to leave their place of employment altogether' (ibid:40).

## Post-Harassment Job status of Complainants (1995-2000)<sup>36</sup>



Many complainants were fired from their place of work after making a sexual harassment complaint. Frequent health problems resulted in sexually harassed women taking days off work. Many women reported that 'sexual harassment [also] had a detrimental effect with partners and families' (ibid:41). As mentioned previously, our experience with women in the trades who became victims of sexual harassment was one of the motivations for this thesis.

## HOMOPHOBIA AND LESBOPHOBIA

*There's nothing wrong with being straight. There is everything wrong with being straight and narrow – one is a sexuality and the other is a prejudice.*<sup>37</sup>

Heterosexual hegemony tends to 'construct lesbians, gay men [and transsexuals, bisexual people] as isolated exceptions (or, 'other'<sup>38</sup>) at least as private and individual, even as personal 'problems''(Burrell and Hearn 1989). There are many surveys outlining the discrimination that follows from these assumptions. Discourses of Christianity within educational organisations can also have a discriminating effect, labelling lesbians and gay men as 'evil' or 'deviant' because of their sexuality. This is often no longer overt but is nevertheless an underlying assumption and discourages visibility. The consequences for lesbian women are that they are further isolated and invisible and run further risk of discrimination. Homophobia, in our experience, is also effective in controlling heterosexual women, especially when linked with lesbian and feminist practice. Threats of violence or implied violence against lesbians and gay men

<sup>36</sup> Human Rights Commission, 2000:40.

<sup>37</sup> Safe School poster, New Zealand Post Primary Teachers Association.

<sup>38</sup>The perception of women as 'other' is taken for granted in educational and social organisations. 'Other' as a concept was first examined by Simone de Beauvoir (1949).

act as controlling factors for all women in the workplace and ensure that most lesbians, gay or 'queer' people remain unable to openly be themselves.

## MAORI WOMEN

The male hegemonic system in education, as well as being hetero-normative, is culturally exclusive. The principle of a bicultural society in Aotearoa/New Zealand is still very much in contention and the colonization of Maori as a people immediately highlights inequalities in educational culture. Maori women relegated to lower socio-economic positions within Aotearoa/New Zealand society are likely to experience difficulties with access to education. In addition to the possible loss of identity as women in educational culture, Maori women face another dilemma when involved with educational organisations. Durie (1998, cited in Bishop and Glynn, 1999) argues that Maori women within educational organisations that are based on white, Western philosophies also run the risk of losing the visibility of their cultural identity. He asks 'What benefit is it to gain an education if it means the loss of your Maori identity?'

How are Maori women affected in terms of the introduction of a gendered culture through education and colonisation? According to James and Saville-Smith (1989:25), 'It is difficult to assess the degree to which pakeha gender relations were imposed on the gender relations of the Maori in the early years of colonisation'. However James and Saville-Smith go on to explain that 'Maori women were governed by the laws of colonial society which left them in the same [gendered] position as pakeha women.'(ibid) We would argue here that, in fact, although the gendered culture would certainly have had some effect on Maori women and leaves them disadvantaged, they were already more disadvantaged. Further, for Maori women and women from other non-Western cultures, the issues of culture and sexuality are somewhat different from the dominant Pakeha culture and assumptions to the contrary are often incorrect.<sup>39</sup>

## A NOTION OF WOMEN'S CULTURE

*Rather than there being a 'woman's way of knowing' or a 'feminist way of researching', there are women's ways of knowing* (Belenky, Clinchy, Goldberger and Tarule, 1989, cited in Reinharz, 1992: 4).

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<sup>39</sup> This thesis has not expanded to cover the area of Maori women's sexuality and the implications of this for Maori women, for the same reasons stated earlier on the appropriateness of Pakeha researchers addressing Maori issues.

During this research we have repeatedly asked ourselves about the notion of a universal 'women's culture'. In our collaboration we have attempted to identify the commonalities between ourselves, and the differences, even though we come from the same culture. The idea of a universal women's culture has been rejected in the past by feminists including black women, women of colour and Maori, who identify fundamental differences between women of different cultures and dismiss the idea that white women's feminist perspectives can speak for them. We agree that it is inappropriate for white women feminists as 'colonisers' to impose our understanding of women's culture. However, we believe it is important, while recognising these differences, to recognise some of women's commonalities in the face of the dominant male cultures that discriminate against them. For example, as stated previously, constructing male-dominated organisational culture around maleness as the 'norm' means that all women are affected by white-male-gendered assumptions of sexual availability.

Further investigation of women as a culture could offer explanations for some of the commonalities between women and develop and isolate the values and beliefs which may make up such commonalities. Hoopes (1979, cited in Hess, 1994:30) considers that cultural groups are those who share values, beliefs, aesthetic standards, linguistic expressions, patterns of thinking, behavioural norms and styles of communication. Whether we call these commonalities a culture or not is beyond the investigative nature of this thesis. However, these commonalities of women's ways of knowing and commonly shared discrimination are part of what we see as women's culture. However as Acker (1991:174) states 'Women's bodies cannot be adapted to hegemonic masculinity; to function at the top of the male hierarchy required women to render irrelevant everything that makes them women'. So how do women hold on to their women's culture in a male-dominated environment?

In all cultures, rape and sexual harassment are used to control women and to enhance the superiority of maleness. Sexual harassment and the perpetuation of male/female power relations in education are detrimental to all women, making gender and sexuality significant, although different, to all women.

In discussing the concept of women's culture, we asked some of our women peers what they saw that culture as being women's culture. They described women in celebration, in health, in sickness, in spirit, in despair and in partnership. They explained women's culture as 'safety' (from men), a place where they were not battered, exploited and betrayed. There were no stereotyped gender expectations or imposed gender roles such as having to be clean, pretty, tidy or sexually available. This may be somewhat idealistic, but the fact remains that the values and beliefs of such a 'women's culture' are based around respect, cooperation and collaboration and not on competition and authority, as with male culture.<sup>40</sup> Women's culture emphasises a woman's way of knowing and being which is only changed when conflicting with male-dominated cultural values.

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<sup>40</sup> Men may also be disadvantaged from a culture based on competition and authority especially men who do not have these values.



## POWER RELATIONS IN TERTIARY EDUCATION

Having discussed power relations in terms of gender and sexuality, we need to recognise the complexities of male/female power relations in education. What are the issues of power, who benefits and how can we define power?

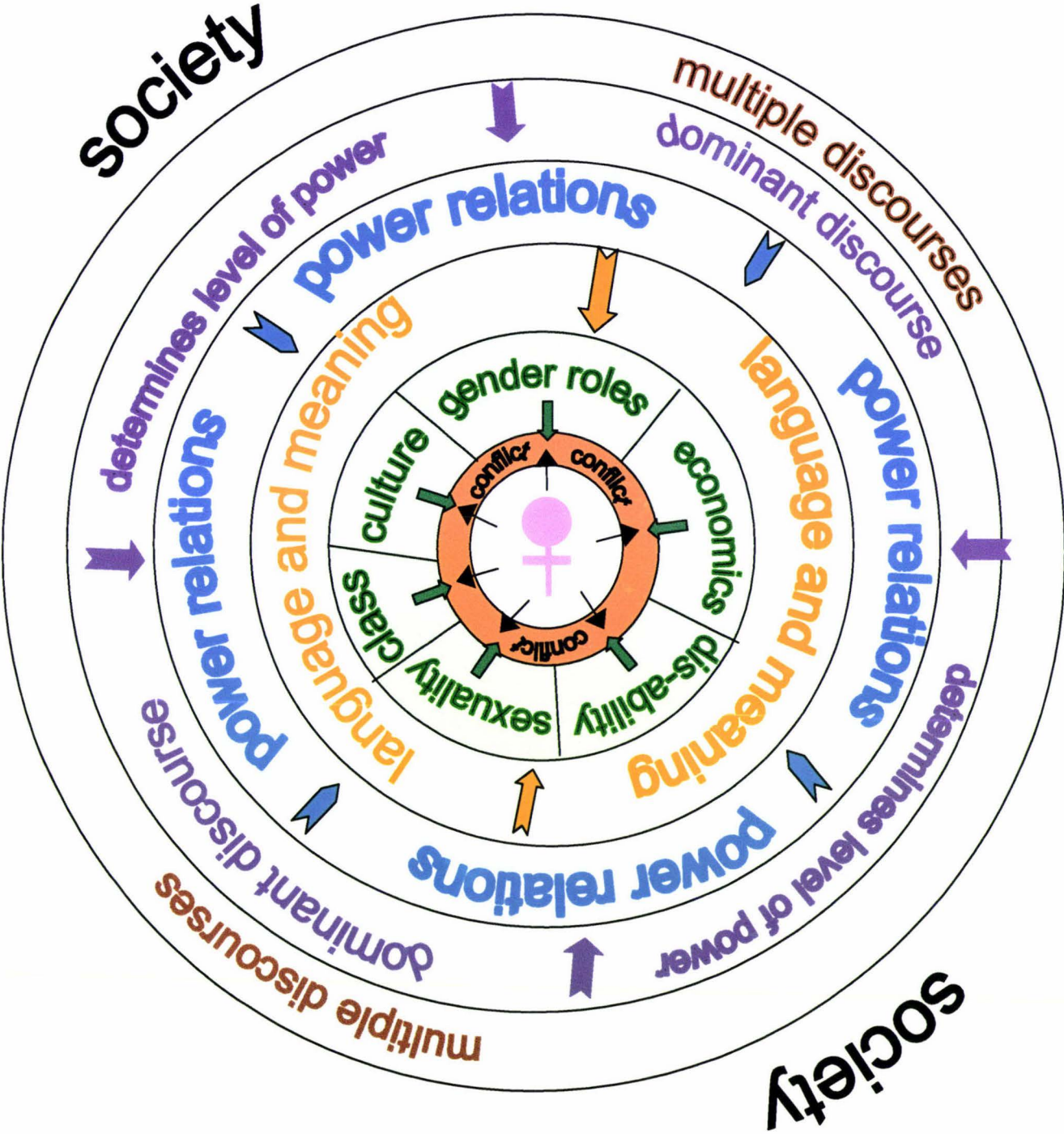
The complexities of power relations are as far-reaching as the cultures and issues involved in this subject. In education they are frequently based around gendered cultures, which value masculinity above femininity. Acker (1991:174) argues that 'symbolically, a certain kind of male heterosexual sexuality plays an important part in legitimating organisational power'. Power relations are also based around ideas of individualism, capitalism and consumerism, which effectively shape the outcomes of education to the benefit of a dominant, male hegemonic, capitalist environment.

Education organisational systems support dominant discourses that minimise the issues of sexism and racism and make education organisational culture appear neutral. This denies the very existence of power hierarchies. In naming the power relations it may be possible to gain clarity about how power can be produced, either from the perspective of the dominant culture and discourses or from the particular position taken up by women. Power has a plurality of meaning. It is never definitive and is always shaped by the current situation, making it complex but specific. Post structuralist feminists such as Weedon (1985:113) consider that power is not necessarily a repressive force. It is seen as happening within a discourse, where a person takes on a discursive position.<sup>41</sup>

We believe it could be advantageous to look at power from a multiple view that could explain some of the complexities for women's experience in education. We believe that the complexity of power relations for women in education can be illustrated as shown on the following page.

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<sup>41</sup> Discursive position—'Positioning refers to the way we take on board our understandings of ourselves as beings who exist or operate in a multitude of different locations within the social structure. We learn through the discursive practices of our society to 'position' ourselves as either male or female, and in a multitude of other ways which we find appropriate, that go to constitute our identity . . . and . . . 'make ourselves'' (O'Neill, 2002:42).



Multiple discourses present in society support dominant discourses in education. Power relations are produced on many levels and from many perspectives e.g. economic, gender, sexuality, class and culture. Language and meaning, both from the subjective position of the women in education and from the external pressure of the dominant culture and discourse, form and re-form, depending on the level of power being asserted, by whom and who receives that assertion of power. Depending on the 'identity' of the woman placed in the centre of the diagram, discriminatory power relations would be exercised through filters<sup>42</sup> of gender, class, economics, disability, sexuality and culture. For example a lesbian, working-class, Maori woman would experience discrimination through class, gender, sexuality and culture, while a pakeha, disabled woman would experience discrimination through gender and disablist attitudes and practices. This 'filter' is two-way: while the dominant culture and discourse define and identify the woman, the woman also either identifies herself or/and is influenced by her cultures.

If the dominant cultures and discourses are male-dominated, with 'male' values, then women are seen as secondary/less than and are thus open to discrimination on the ground of any of the areas shown in the centre of the diagram, ie sexuality, class etc. Women are also subject to definitions of 'male' dominated culture that describe women in a certain way, for example as sexually available to men, weak, invisible and powerless.

The implications of hierarchical power structures, as well as the complex power strata shown by the diagram, are far reaching for women in tertiary education and trade education in particular. They create a conflict zone for women, who can never be part of male culture as they are never 'male'. The best they can be is 'one of the boys'.

'Filter' areas also become conflict areas<sup>43</sup> as women attempt to define and identify themselves through these filters with various definitions and assumptions and to locate themselves in the dominant culture.

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<sup>42</sup> The filter area is shown as pale green on the diagram

<sup>43</sup> The conflict area is shown as red on the diagram.

The conflict that all women experience in male-dominated education organisations is inevitable because of the division of gender. As discussed, sexuality is one way in which these gender divisions are perpetuated. Therefore it is important when discussing women's experience in education, and in the trades particularly, that we emphasise the significance of an analysis of power which unmasks violence and harassment towards women that is used in order to insist that they comply with designated subjective positions. Foucault (cited in Silin, 1995:81) argues that in exposing this 'violence',

*. . . the real political task in a society such as ours is to criticize the working of institutions which appear to be both neutral and independent [in order to unmask] violence which has always exercised itself obscurely through [institutions], so that we can fight fear.*

Power relations and structures are so embedded within educational culture that it is difficult to identify and grasp for analysis. Some women educationalists call this 'crazy making' and find themselves confused and disorientated when trying to explain their experiences. Law, Campbell and Dolan (1999:40) argue that '. . . instead of power being imposed by ruling groups, as the structuralists maintain, or consented to as the hegemonic theorists assert, it is omnipresent in every circumstance and action as cultural knowledge and habit'. Male power is, 'quite literally embodiment and . . . all the other elements which white Westerners know as "masculine" - character, motive and sexuality - add up to embodied power. This occurs through becoming an aspect of men's relationships with their bodies ie sexuality, and an organising principle in social practices that crucially concern the body' (Connell, 1987:183). The lack of recognition of dominant power relations, or outright denial, literally means that women often find themselves trying to make sense of something that is purported not to exist, but is in fact fundamental to the organisation of power relations.

In attempting to define power relations, we, as researchers, have generally dispensed with other peoples' definitions and preferred to struggle with the concept and find a way. Then, and only then, could we come to grips with the concept for women in education.

*Chapter 6*

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**REFLECTIVE COMMENTARY**

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## SITTING OVER COFFEE

*We look at a woman who has become a friend. She is someone we have experienced as being one of the best trades lecturers in the country and one of the few women. She consistently uses 'best practice' principles in her teaching and management of the programme. We ask her 'How are things going?'. She looks at me straight in the eye and says 'It just gets worse . . .' she pauses 'and more disgusting.' Our hearts sink. This is one of our best tutors, one of the few women and we think she is ready to leave.*

This situation happened in October, 2002. We are constantly making direct links between the beginning of the research in 1997 and today. What women told us then, and what is in the narrative stories, is still happening, both for women students and lecturers.

It brings to mind the look on some of the women's faces when, as Women's Education Co-ordinator, Jesse would go to classes to talk about student support, equity and harassment prevention. The look on some of the women's faces said 'Leave it alone, I've got enough to cope with'. But we struggled on, trying to make a difference. Change was too hard and resistance increased each time we tried, bringing us around in full circle. It is obvious to us that this thesis continues to reflect women's experience in trades education and the research still holds validity.

In exploring women's experience in Aotearoa/New Zealand polytechnics, this thesis has highlighted a number of themes connected to women's experience in trades education. From the women's stories, themes of isolation, alienation, invisibility and exclusion are common. Sexual harassment and sexist, and often misogynist language in this exclusively male environment continue to be everyday events for women students and women staff.

Current experiences of women in male-dominated trades and tertiary education culture show that societal expectations and attitudes, including sexism and racism, continue to

be reproduced and validated within educational organisations through heteronormative, male hegemonic discourses which produce power relations that locate women through the lenses of gender, sexuality and male culture.

Barriers to women's access, participation and success in Aotearoa/New Zealand trades education are very much evident, even though there is a perception in current tertiary education culture that women have equal opportunity.

Women who are involved in trades education do extremely well, regardless of the culture they work within. Women continue to produce high quality results from their work and are highly skilled and academically competent.

However, in spite of shortages of skilled trades people<sup>44</sup> in Aotearoa/New Zealand, attempts by Industrial Training Organisations, tertiary education providers and the Modern Apprenticeship system to increase the involvement of women, have had little effect on participation rates.

We have highlighted issues and themes in this thesis on the effects of dominant male culture, with its heteronormative language, its labelling of women in terms of their gender and sexuality, its inherent homophobia and overriding power relations which both exclude and exploit women and are responsible for the negative part of women's experiences. Women's success in trades education has resulted from their courage, determination, assertiveness and commitment. Women who were supported and validated for who they were, for the choice they had made and for their skill and expertise were able to remain actively involved within their trade. However, this was always at a cost. Whether in the workplace or the trades education environment, women were always faced with internal and external stresses of having to be seen to be 'better than' or prepared to become 'one of the boys'. Even if women were able to ignore the short-term effects of sexism, racism and heterosexism, the long-term effects of these eventually excluded women from both their chosen trade and future employment within that trade.

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<sup>44</sup> *NZCTU Economic Bulletin* No 30 (September, 2002)

Almost everything in male culture, from equipment to people, is referenced from a male heterosexual viewpoint. Technology is considered the preserve of masculinity and ownership of technology within male culture belongs to men. As Wajcman (1991:143) observes, 'machine related skills and physical strength are fundamental measures of masculine status and self esteem . . .'. For women, this results in lack of prior experience, being seen as weak and lacking in physical strength, and embarrassment when sexualisation of equipment into male/female parts is used to harass.

Simone de Beauvoir, in her 1949 groundbreaking work examines why women do not question male sovereignty. She asks why women have not antagonistically opposed men as men have opposed women and each other. Even though feminists have been openly disputing male sovereignty for many years, heterosexism remains a way of living that normalises heterosexual relationships and the dominance of men over women. As a result, it undermines 'female agency' (Hoagland, 1990:29). In the women participants' experiences, they were never considered equal but rather in need of protection. However, it becomes problematic when men are protectors: it indicates that there must be a danger. 'In portraying women as helpless and defenceless, men portray women as victims . . . and therefore targets' and as 'the object of male passion and thereby its cause' (op. cit: 30). When women step outside the norm, they challenge male cultural authority and become a danger. As a result, physical violence against them is considered justifiable. All of the women in this study, by their choice, stepped outside the 'norm'.

Violence against women is expressed both physically and verbally. It is often the covert messages in denigrating language that can produce the most detrimental effect. Even when not directly spoken to, language and meaning for the women had the effect of making them feel very unsafe. Like harassment, the psychological effect of language is subtle and repeated. Stanley (cited in Hoagland, 1990:17) argues that 'through mere stylistic choices (of language) – something someone *does* to a woman becomes something that *happens* to her. Then what *happens* to her can develop into a temporary or accidental *characteristic* of that woman and, from there, be an *essential* part of her state or character.' It can be said that language comes before experience and therefore shapes our experience. For some of the women, this meant that discrimination was so 'normal' they could not separate it from their experiences.

Sexual harassment and conversations about male sexual conquests became an accepted part of some women's experience in trades culture, what one tutor even called 'an industrial standard' by which male trades culture is recognised. However, many women experienced feelings of physical danger, predatory practices and offensive behaviour by male students and some tutors. Some women also experienced violence from domestic partners who did not like 'their wives' being educated.

The importance of gender and sexuality to the identity, attitude towards, and identification of women both in tertiary education culture and trades culture is inextricably linked. Women's identity and experience as 'other' is consistently expressed by all women in tertiary education, producing a sense of not belonging in a culture which is developed by and for men. Women's sexual and professional availability to men is consistently supported by heteronormativity and hegemonic masculinity; this pervades the tertiary educational environment, producing negative consequences for women.

Women experience gender resistance immediately they enter a trades education environment. The women in the study often found that men were shocked or surprised by their presence. These women were under no illusions that they were entering an equitable environment and most prepared themselves in some way. However, it was often difficult to fully prepare for this environment when women were made so vulnerable through something they could not control – their sexuality. Women in tertiary education organisations are not immune from this discrimination. As the study shows, women in tertiary education are also subject to issues of gender, sexuality, heterosexism and power relations dominated by male culture.

Homophobia is common in both tertiary education and trades culture, but particularly so in trades culture. Butler (1990) comments that heterosexuality is a label socially constructed and naturalised as 'norm' to support and maintain the roles of power/subservience and acceptance/rejection binaries. The dominant heterosexual culture produces its own 'ideological myths' (McLaren, 1995) of heterosexuality being the 'natural, civilized and appropriate sexual relations', which is violated by homosexuality. Within education organisations there are clear boundaries of acceptable heterosexual behaviour, with severe punishment for those who dare to transgress.

Verbal abuse, physical violence and ostracizing are controls experienced by lesbian women in this project. This homophobia is institutionalised within many educational organisations and systematically damages gay, lesbian and 'queer' students and staff, both personally and academically (Uribe and Harbeck, 1992:12).

Labelling a woman 'lesbian' links her with other women who are - and who are discriminated against and labelled as - deviant, leaving her open to abuse and violence. The woman's focus, whether she is lesbian or not, then becomes one of survival, which may mean compliance or the need for a constant shield. What line she takes for survival it will mean the unnecessary loss of energy.

Power relations produced within discourses of male hegemony resulted in violence and harassment strategies being used by men to reproduce hierarchical positions. One key advisor explained how a young woman left her course even though in the previous year she had been top student. After experiencing ongoing and intensive harassment, her grades dropped along with her self esteem; finally, when she was threatened with rape, she left the course. Much of the harassment that women participants experienced was reported as being less overt and not as extreme as this example. However, the insidious nature of constant comments and harassment over an extended period of time had a cumulative effect on even the most self-confident, politically aware and assertive of the participants. For women students and women staff, this wearing down often resulted in attrition.

Power relations are also present between male and female staff. One key advisor (Appendix 10) working in trades experienced the use of male aggression, talking over, using loud voices and taking up physical space which are still strategies being used to decrease women's credibility. It was only when this woman took on the same behaviour that she was even noticed, let alone acknowledged. She used this strategy reluctantly and as a last resort, saying 'I don't like myself, when I behave like this'. The result of this, she admitted, was that her work in this area was extremely stressful. In the narratives, women consistently described similar situations where violence of one form or another was used against them.

As previously explained, the complexity of power relations, both in tertiary education and in trades, can be realised through filters of gender, sexuality, class, culture, disability and economics, showing the production and reproduction of power within education culture. This concept began to be explored in this thesis and could be developed further in future research.

Employment prospects within male-dominated trades are characterised for women by disappointment, accumulating debt and little possibility of equal employment. Women with access to funding and other support may have the opportunity to withdraw from a male-dominated arena and become self-employed, while women without this lead are disadvantaged. Employment prospects for women also focus around difficulties in gaining credibility and negotiation of the trades equivalent of the glass ceiling, which produces 'jobs for the boys'.

#### DIFFERING EXPERIENCES

At first we were surprised that some women appeared to have such a positive experience when others had such a profoundly negative one. It is only when women become more 'politicised', more aware of sexism, racism, etc., that they are able openly to acknowledge the inherent inequalities in the system and to relate what is happening to them to a wider context of inequality and sexism. Awareness has to be achieved before one can appreciate the subtleties of disadvantage and the overriding influence of power relations and dissemination.

Maguire (1993) found similar difficulties in her research. The majority of the women tutors she interviewed did not see or acknowledge any gender disadvantage. In her paper 'Women Who Teach Teachers', she investigates some of the possible reasons for this happening. Some tutors believed 'the very fact of their own employment demonstrates that there are no bars to the employment of women'. However, she points out, these women have not analysed their working conditions further than issues of access. Values of neutrality, impartiality and professionalism have, she argues 'served to disguise gendered power relations' (op.cit.:1). The influence of gender discrimination, she argues, will not always be recognised where the 'common sense' hegemony of male dominance is masked by a version of gender neutrality.

Overall success for the women in our research was characterised by their own confidence, motivation, assertiveness and high expectations. Awareness of sexism, racism and homophobia was sometimes a double-edged sword, making it difficult for women to accept male cultural values, attitudes and behaviour. However, strength and determination, making of connections, love of their job and support from families and friends, meant that for the most part women found ways to overcome stress, discrimination and harassment in the short term.

In summary, we have briefly investigated the idea of a women's culture, a women's learning style and way of being. There would be huge implications for power relations if collaborative and cooperative ways of working were used in the running of organisations. At this point educational organisations are run along the lines of male cultural values, which encourage competition and individualism while claiming gender neutrality. This is a very confusing experience for women, who are told that they can achieve on their own terms but find themselves having to be someone else to do so. The incorporation of female cultural values is in fact what is said is happening, but does it in reality?

Other researchers have explored the idea of a women's culture (Åas, 1981:537) states that 'Because of social circumstances, male and female are really two cultures and their life experiences are utterly different'. We would argue, therefore, that women will never be able to work equally within a male framework. Resistance to change is like stirring muddy water. The more you stir the less visible the issues become. One needs to start with a new vessel and clear water. A culture based on feminist principles of equality and collaboration. Åas (ibid) explores the idea of women's culture within an organisational structure of ecology, holistic health, power and solidarity, caring ethics, an alternative economy and the feminist critique of technology. This, we suggest, would be a sound foundation for the formulation of an education system that would produce equitable environment for everyone.

Trades culture, we believe, has been 'left behind' by educational organisation reform. This is for political reasons, such as changing economic viability and priority given to skilled employment, and because the kinds of issues uncovered by this thesis are in the 'too hard basket'. Claims that there is little demand for women's involvement in the

male-dominated trades, continues to be used as an excuse to avoid addressing problems of low numbers, leaving the problem of gender unresolved.

Women's experience in tertiary education, therefore, is accentuated when looking through the windows of women's trades education experience. Both are centred on issues of gender, sexuality and power relations produced within male hegemonic, heteronormative culture and discourses, which claim gender neutrality.

For Maori women involved in trades education, this thesis exposes a gap. Are their experiences different? Are the issues discussed equally relevant to them? What is the experience of Maori women in trades education? This is an area for further research.

Perhaps not surprisingly, it remains extremely difficult to encourage women to enter and remain involved in male-dominated trades education and work. We do not have any answers to this, nor are we convinced that this situation will change. However, it has been extremely important both to us and to the women involved in this study to tell the women's stories and to appeal to educationalists of the future to effect positive, equitable change so that women can be acknowledged and valued for their contribution to this area and so that trades and tertiary education can benefit.

Participants in this research identified ideal education environments as being equitable, with 'best practice' as the norm. Surely this is not too much to ask? We make no apologies for being openly supportive of the women's desires for equity and equality, we link this with best educational practice.



*Chapter 7*

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**OUR RESEARCH COLLABORATION**

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A COLLABORATIVE FRIEND

I want someone to come in the door

With a smile and a big warm hug

To let me know I'm valuable

Just as I am

There'll be no advice

No expectation of change.

My friend will already know

That pain is important in this journey

And must be travelled through.

My friend will stay beside me

And hold my hand

While I make my own discoveries

And she makes hers

Then we will share our journeys.

Adapted from a poem by Joy Cowley

## OUR STORY OF COLLABORATION - FOOD, FARM AND BEACH



We collaborated at a distance, face to face, at the beach, on the farm and in the city. Yummy food was always an important factor!

As well as being incredibly valuable to this research, our collaboration has been an exciting process for both of us. It has meant that the research has been much more than collecting and analysing data, it has been a journey for both of us as researchers, where we have learned so much about ourselves and have been able to relate to the women research participants in a much more in-depth way, bringing out aspects of the research that never would have been told. We have talked, laughed, cried and worked together. The process has been a long one, but worth it. As we write about this collaboration, you will ‘hear’ our voices and thoughts during our process. We wrote to each other when we were not able to meet. We spoke on the phone. We talked and talked.

*“One of the greatest advantages our collaboration has given us is committed conversation. We had the opportunity to play out our ideas both fanciful and profound, allowing challenge and clarification within a nurturing environment. These conversations also allowed contemplation and reflection on the topics and slowed down and expanded the development of ideas, giving time for them to grow in depth and width rather than rushing forward in a straight trajectory towards the finish”.*

We first met in 1996 and began working together in 1997 on this research. At the time we were employed by the same polytechnic, in the same building, and shared many of the frustrations and pleasures of our work environment. Because of the close proximity of our work area we were able to meet regularly. During this time we developed a trust in and understanding of each other, acknowledging our strengths and learning from each other. One of the major outcomes of this very positive experience was the development of our friendship.

As a result of our successful partnership, we began to question how other people collaborated in research and if our way was special to us. We spent some time reading about research collaboration, talking to other research groups and analysing our particular way of working. From this investigation we were able to understand how unique and valuable our relationship was, both personally and academically.

We were surprised to find that senior members of the academic staff at Massey University questioned the validity of working collaboratively at postgraduate level. After all, as lecturers we had encouraged student-centred collaborative processes in the classroom, so why not in research? They asked whether we would produce separate parts of the thesis so that marks could be allocated appropriately. How would they know who had completed the work? The number of words in the thesis might have to be increased, special learning journals would have to be maintained, and on and on. With strong support from our supervisor, a detailed request from us, and some understanding people, six months later we were eventually given permission to do this postgraduate collaborative thesis. Many people asked us questions and made comments.

*Collaboration—that's easier, you do one half, she does the other half.*

*It must be great to have someone to help you do the work,*

*You wouldn't like to help me do my assignment, would you?*

These comments, or similar, have been repeated to us many times since we began. However, as anyone who has worked in a close collaborative way will tell you, it is not

easier - it takes longer, involves more work and is more demanding. However it is more rewarding. We have found trying to capture the essence of our collaboration on paper difficult and the result does not totally reflect what is the spirit and soul of the two of us as one writer. Within the limitations of words, diagrams and pictures, we continue to weave our story from its living entity.

As previously discussed, an important aspect of using a collaborative methodology for this particular thesis was its usefulness to our topic about and for women, their experiences in study and work in a male-dominated environment. It is our belief that generally women tend to choose a collaborative way of working, sharing information and workload and supporting each other, rather than a more masculine, individualistic, competitive approach. We wanted to provide a safe and supportive environment for the research participants and key advisors as well as mirroring a women's way of working as students in a tertiary education environment. We wanted to 'imbed' our personal story of 'becoming' and of writing (Reinharz, 1992) within the wider stories told by the women in trades.

We immersed ourselves in the participants' experiences, attended all of the interviews together and reached the disappointing realisation that we could not change the environment for women in trades.

Working within a tertiary education environment, we both realised that a women's way of working does not have the acknowledgement or perceived power of a masculine approach and one of our reasons for this collaborative style is to challenge the status quo. We want to demonstrate that there are other methods of working that are equally, or in our opinion more, successful in a teaching and learning environment.

## OUR JOURNEY WORKING TOGETHER

Early on in our work together we drew up an agreement<sup>45</sup> which gave some formal guidelines that were useful in so far as we had to consider issues involved in collaboration and problems that could arise. In fact, our developing personal relationship has made such an agreement unnecessary.

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<sup>45</sup> This follows Bond and Thompson's (1996) opinion that a contract is an important part of working together in a collaborative partnership. They advise that this should be in writing. The agreement can be found in Appendix 11.

Before starting the research project we asked ourselves how we could validate our research while at the same time respecting ownership of the participants' experience; create a new picture, which includes different perspectives.

Our collaborative methodology was a central factor. We have gone some way in addressing these concerns, using an appropriate methodology. As much as possible, we have let the stories speak for themselves. However, regardless of how equitable we aimed to be, we recognise that as researchers we were still in a more powerful position than the participants.

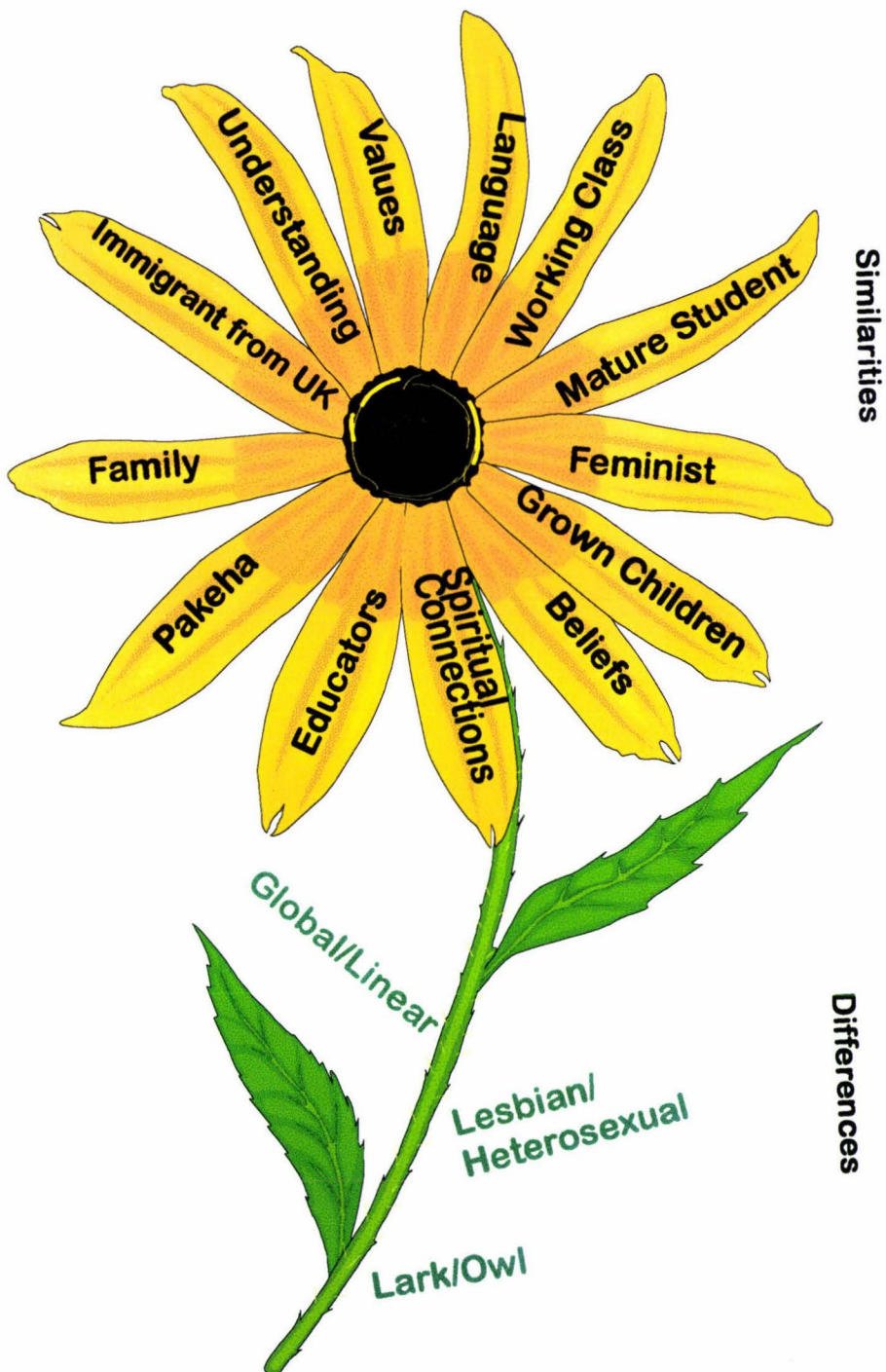
Our collaboration has slowly developed and is still developing as we try different methods of approach. At the beginning there was an implicit understanding of the way we would work together, based on the feminist principles that we both held but it took some time before we labelled our working together as collaboration and then recognised what that collaboration actually meant for us.

In our process, we questioned who we were and if we could work together. We discovered that we were both from the same cultural background, i.e. English and working class, and we held feminist beliefs, though from different perspectives. With a radical feminist background, Jesse had worked in several areas advocating change in the position of women, both in the community and in education. Maureen held more liberal feminist views and worked with women training for more traditional work areas. Maureen had previously worked in a government department involved with the administration of the old apprenticeship system and had seen some of the advantages and problems inherent with that system. Together our different experiences enhanced the knowledge base of the research.

Our collaborative approach also meant that we supported each other both professionally and personally. When we felt awful about what was happening we could do a 'reality check', which helped us remain sufficiently detached while being appropriately concerned. We were also able to deflect the resistance and negative influences that devalued what we were doing as being unnecessary. Few students working alone had this kind of support. Our lecturers envied our collaborative relationship.

The following diagram gives an idea of our differences and similarities. We made a great team!

# Who Are We?



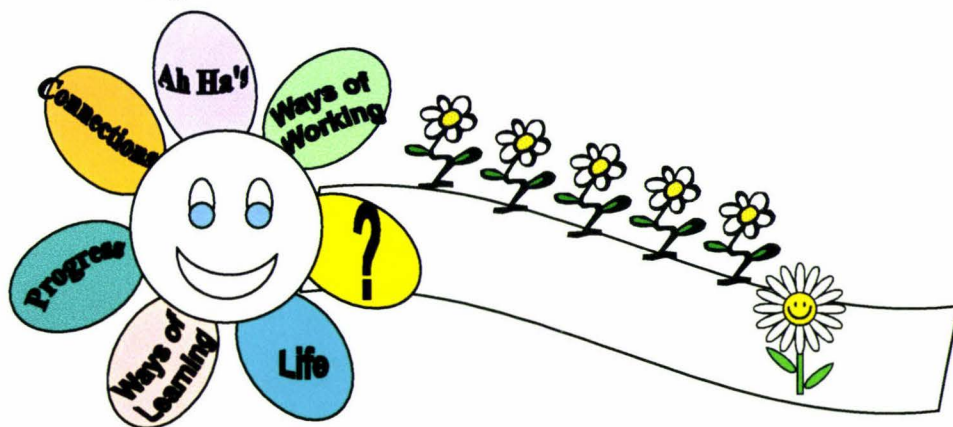
Our differences provided an opportunity to learn from each other about our sexuality cultures, what that means for us in our lives, our philosophies and how we approached the research. Our left/right, linear/global learning styles demanded that we navigate our ways of processing information. Throughout the research we both developed complementary learning styles. A turning point for Maureen's left-brain dominance is demonstrated in the following interaction.

*Oh yes, I remember. You were drawing a fence, a box to describe an idea.*

*I wanted to get out!*

*Yes, then I drew a pathway. I drew daisies neatly along the side of the path and you stayed quite . . . very quiet. Finally, it was like, almost as though I got this flash of understanding. I had thought I was doing really well drawing and not writing a list. Suddenly, I drew a daisy in the middle of the path!!!*

*Yes, that was fantastic, I loved it! We laughed so much; we celebrated the beginning of change and coming together in our learning styles, our thinking.*



*And I learnt that flowers could grow anywhere*

Sometimes our discoveries were fun; at other times they were more confusing and frustrating. Sometimes we found clarity in our direction, then something in the research process and our collaboration process would bowl us over, turn things upside down and we would wonder about which direction we were going. Our natural learning styles meant that when our process was global, one of us was in front, and when it was linear, the other took the lead. It was a new and interesting process, as each of us had studied in groups and alone, but never like this!

# What's happening???

*Validate the process*

*Turn the whole thing*

Not **linear** any more

**upside down**



*The research has*

*bowled us over*

*Taken over*

**We are going to do this in a different order**

*3, 1, 2*

**HELP!!!**

**This is not linear**

*YIPPEE!!!*

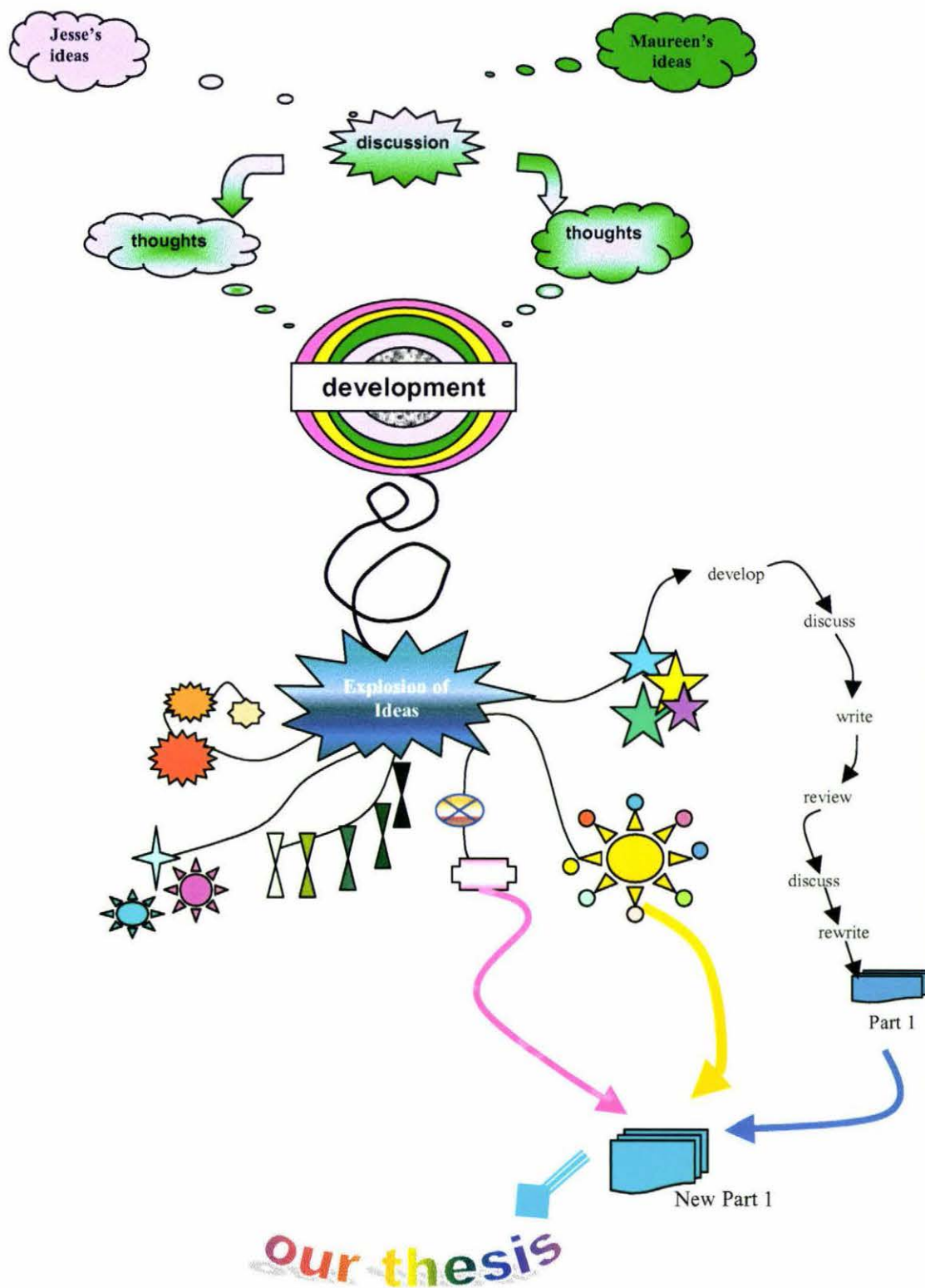
*This is global*



**HELP!!! WHO IS IN CONTROL HERE**

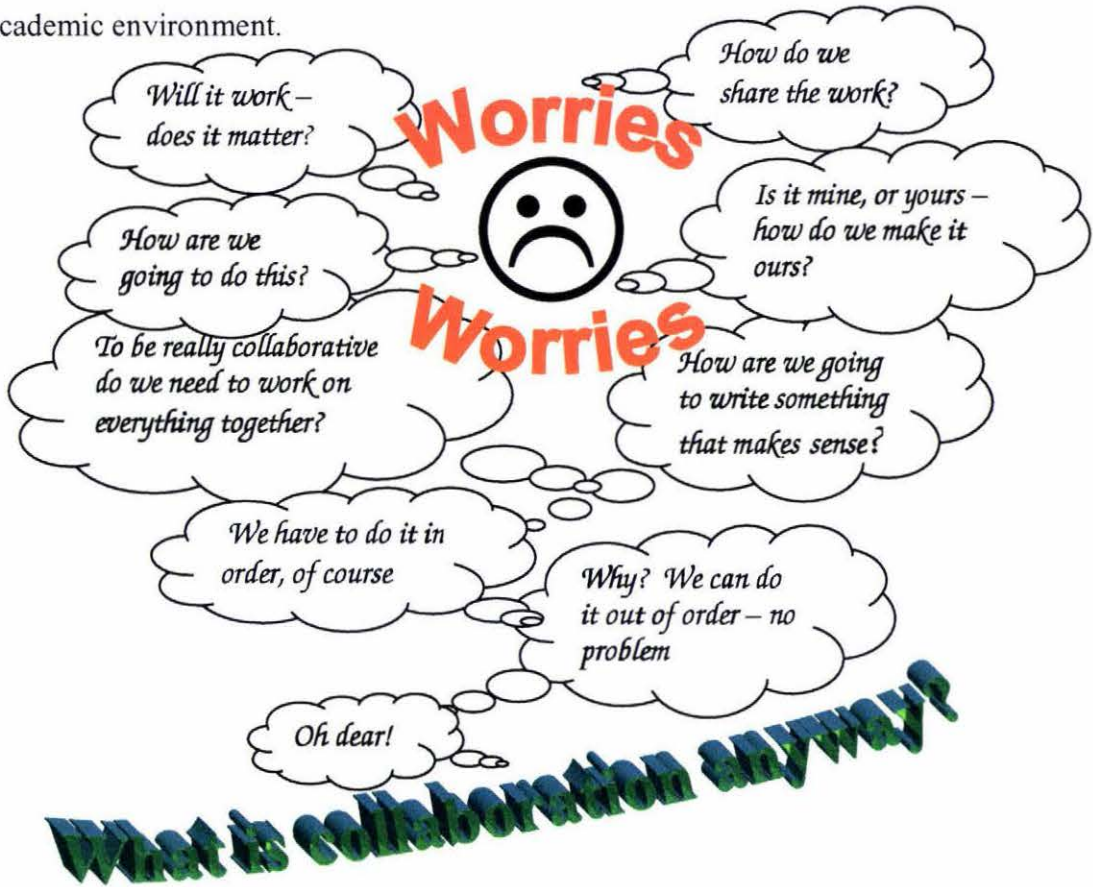
We identified a process of working demonstrated in this diagram. From our discussions we developed ideas. These ideas escalated and developed further. We would discuss, write, review, discuss, write etc.

### The Development of Our ideas

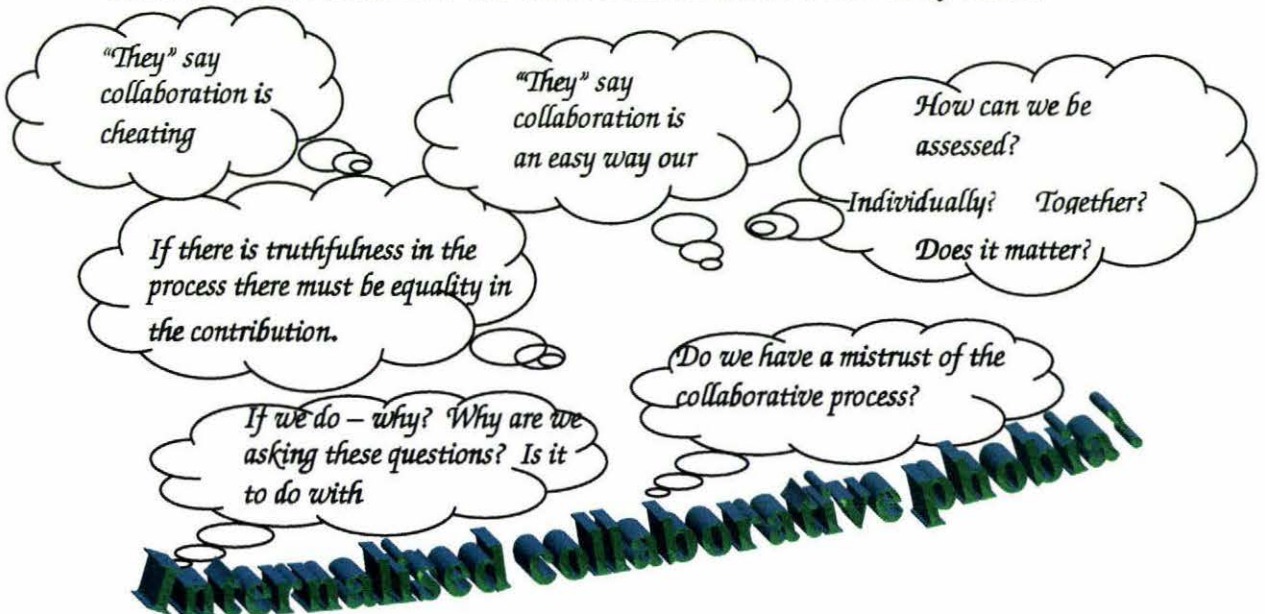


We used mind maps, conversation, note taking and tapes to organise our writing.

After trying to identify how we were working, we began to look in more detail at what collaboration meant for us. Doubts about our work and about ourselves began to emerge as others asked questions about the validity of doing collaborative research in an academic environment.



These worries produced more questioning about our collaboration process and the concerns we had about how our collaboration would be viewed by others.



This questioning, and our doubts, helped to clarify our understanding of the importance of the ‘real’ collaborative process. We wrote together most of the time, whether it was on the phone, by email, or face-to-face. Always it was important to validate our process and the experiences of the women participants. As Rienharz (1992: 248) states, ‘Making the invisible visible, bringing the margin to the centre, rendering the trivial important and putting the spotlight on women as competent actors, understanding women as subjects in their own right...’ is how we see our research and collaborative process and philosophy.

#### WAYS OF WORKING AND GROWING – EXCERPTS FROM OUR COLLABORATIVE NARRATIVE



We mainly wrote together or if we wrote apart we edited each other’s work until we were both happy with it. Our many conversations show some of the links with the research.

This photograph<sup>46</sup> depicts one of our more organised moments!

We have decide to let these excerpts from our emails and letters to each other, tell their own story at this point. You will notice that we call each other ‘sister’ or ‘sis’. We adopted this endearing term as we got to know and trust each other.

*Keep going sis; silence denies other women the benefit of our  
knowledge and experience.*



*We are miles from each other, you in Auckland and me in  
Wellington.*

<sup>46</sup> Photograph by Laureen Nation Plimmer.

*How important is proximity to sharing and collaboration? The sharing at a distance becomes more analytical, using email, altering the dimension – so does this alter the meaning?*

*More time between contact – different environment. What is it like where you are? At the beach, the wild west coast, makes me think as I struggle through those westerly winds, is this what it's like for these women, to struggle against the tide?*



*Different places different thoughts  
Email allows contact without waiting*



*My experiences allow easier identification with the links and the wider picture.*

*My lack of experience and questioning keeps our integrity in the research.*



*Reading about Celia Lashlie, former head of Christchurch Women's Prison (The Dominion, 12 May 2001) she believes that there are no accidents in life, that people have about them a sense of connectedness, spirituality – made me think. If a woman joins the 'boys' in trades education and work, do they give up their own self, their spiritual self? Or does their spirit change to encompass/accept their dual role of woman/surrogate man? How do they keep their connectedness? Does their very presence change the male stronghold, change the environment, water it down, neutralize it? Could it get taken over by women's ways – I doubt it. What are they anyway?*



*Change is an interesting thing.*

*What has happened to equality? Have we got it, or is that an excuse so that we will shut up and allow the power relations that are so ingrained in educational structures to continue without question?*



*Well what can we do? We can tell it how it is, we can give the women a voice... how do we make it their voice?*

*Will we misinterpret the stories? Have we already affected these women's experiences, perhaps they will now see things differently? What if we belittle their achievements, what right to do we have? Would they ever read our thesis, probably not, does it matter, it does to me.*

*If we don't use the stories to highlight the issues why collect them? We have struggled with the ethics. We can only tell their stories the best we can and honour them in doing so. Thank you women, you have given us so much.*

This is how our conversations continued, over many topics and issues, growing through them both personally and professionally - always touching base with each other. We found ourselves, as we have many times, challenging the system, and ourselves, but we decided to put our energy into our collaborative process and not into politics. Through this very process we became non-traditional ourselves. We, like the women, found that to be accepted we had to prove ourselves both in doing feminist research and in working collaboratively in a postgraduate thesis. The collaborative process for us has proved to be as important as writing the thesis itself.

Along our journey we found that collaboration helped us remove or acknowledge personal bias in our research. It allowed us to challenge each other and resulted in greater clarification of ideas, developing our questioning and our understanding and making us feel more accountable. In developing our research relationship, we also developed our friendship. It would not be possible to work so closely without doing so. Our politics of feminist practice and collaborative working enabled us to consistently validate who we were and how we were, as this always affected the research process and our ability to relate the data to educational organisations.

Communication was incredibly important in this process and meant that we spent many hours working together. In building our trust with each other we were able to question, argue and come to new understandings. The process of discoveries for us meant new interpretations, pictures, threads, tapestries, paths and understandings. From a tidy, fenced, suburban garden into a blossoming meadow!

# developing

*Trust*

*Acceptance*

*Understanding*

*Respect*

*Taking steps further than professional — into friendship*

*Learning — where are you coming from*

*You cannot do it satisfactorily on only a professional basis*

*Finding out about ourselves*

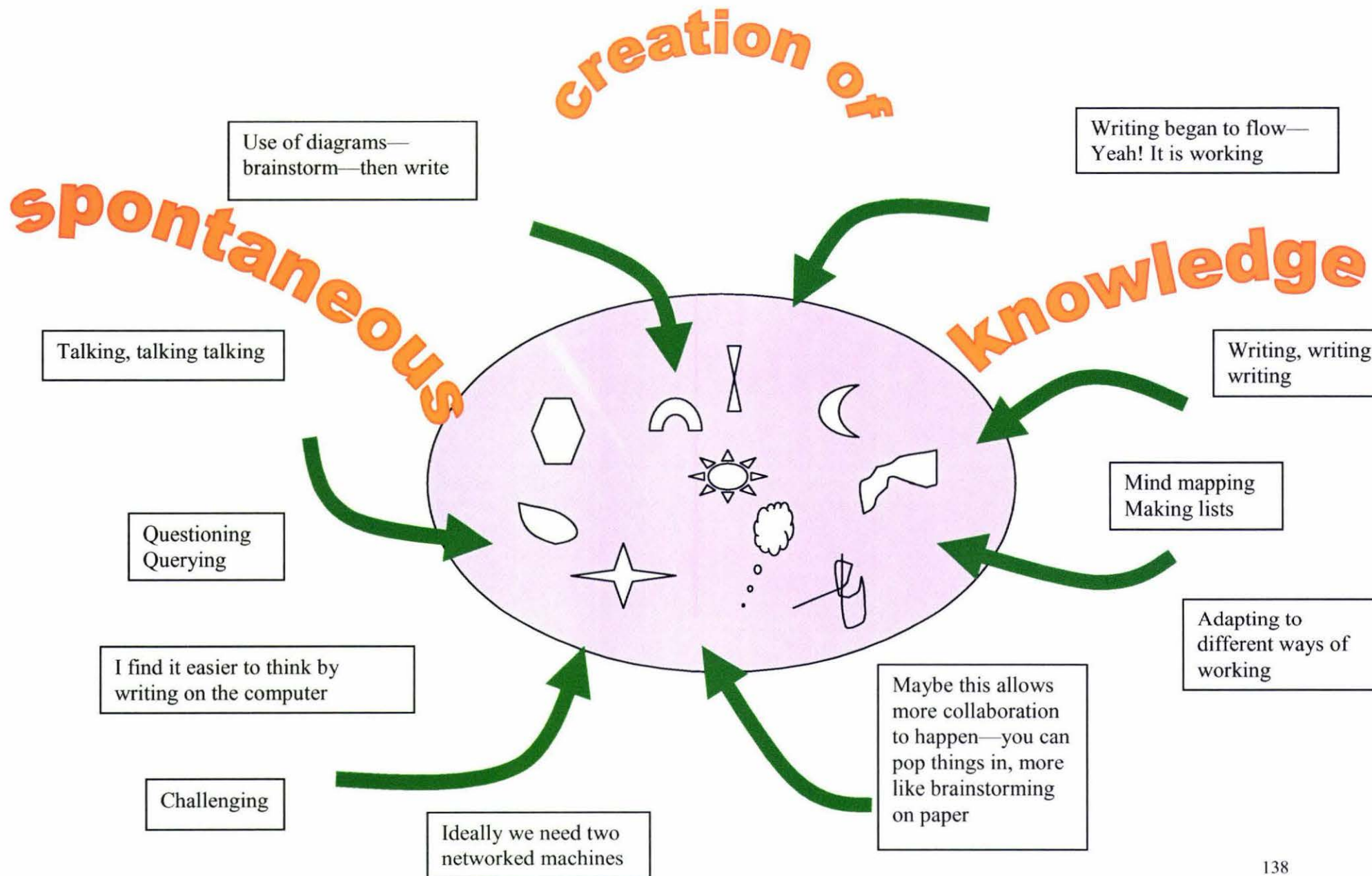
*Finding out about our experiences and referring them back to the research*

*Questioning ourselves — research evolves — grows out of the questions*

*From the planned research to the whole concept of working in collaboration*

# Moving forward

The diagram 'Developing' shows some of our progression. We adapted to each other's processes and benefited from the combination of styles of learning and working. Our collaboration process enabled us to create spontaneous knowledge. We have expressed this in the following diagram.



We discovered that collaboration meant very different things to different groups of people. In other collaboration we saw women writing alongside each other but not, as we did, writing together. Collaboration was also defined differently, depending on gender and culture. Researchers' preferred way of working, personality and culture determine the communicative and collaborative process.

Coming from the same cultural background was an advantage in the communication and collaboration process. As part of our somewhat diligent professionalism as researchers, we constantly questioned each other and ourselves as to our mutual understanding. We questioned so much and got to know each other so well that we made automatic links, not necessarily with the same thoughts but with the automatic questioning process. We later found ourselves finishing sentences and were able to continue writing when one went off to make a cup of tea!!

We found that researchers who had similar research methodologies valued our type of collaboration. For example, other women researchers and the Maori research group mentioned in our research on collaboration (Gray and Summers, 1999). The reality of what we have gained from our particular method of collaboration and from that of others who use a similar method has led us to believe that in fact this method can lead to a deeper understanding of the research and research process. We now have a better insight into what it means to work with someone else in "truly collaborative research".

During the process of this research we have discovered much about the processes of collaboration. Respect, trust and integrity were essential components for us as researchers working together in this more intimate type of collaboration. However, the process increased the challenging, sharing, risk taking and personal growth needed to develop a research method.

If we were to look at our collaboration as a culture, we would say, at this stage, that we believe our collaborative process to be gendered. That does not mean to say that men do not use collaborative methods but that they would be less likely to do so in the way that we have. Our feminist belief means that our model of non-oppression and non-aggression must be lived out in the collaborative relationship.

In our opinion, the methodology and processes used in that research process cannot be separated from the actual topic of the research, especially when we are dealing with women's experiences and lives.

We realised that the power relations in our collaborative relationship were even more important than we had previously recognised. Our use of non-oppressive power has allowed us not only to be ourselves but to express what we are thinking and not feel judged, enhancing the outcome of our work. However, we recognise that in saying this, no relationship can be free from power. As we look at each other and see the non-verbal reaction to what the other is saying, do we lose confidence, even if only slightly, in asserting our opinion? Do we gain prestige from the other giving away their power and do we use this to our own advantage? Do we avoid conflict? How much about our culture, and ourselves are we learning? What else do we bring to this collaborative relationship? These are questions that can be developed in further research.

Images have become very powerful and important in our collaborative process and, as you have seen, we have used them throughout this thesis. The hidden curriculum in working in a collaborative process became our learning and depth of understanding, and the gift of a deep friendship that found us regarding each other as sisters. As part of our women's culture, sharing food became one of our rituals. Hearty soups, wonderful bread and too much sugar!!

People have said to us that 'it must be easier with two of you'. Easier? No! More rewarding? Yes!! Major benefits can be gained from working collaboratively at postgraduate level. We identified some of these as follows.

<b>Wider scope</b>	Allows us to cover a wider scope of the subject and a more in-depth study using our joint data and developing the research question further by investigating women as a culture within the tertiary education environment
	Appropriate environment for us as women
	Gives each of us an equal voice

- Equal voice**      Allows us to share the power during the process of research, writing and publication
- Shared power**      Allows us to value and evaluate each other's knowledge, experience, values and beliefs through a peer review process
- Learning**      Provides experiential learning at its best
- Personal and professional growth**      Allows personal and professional growth both as researchers and in our own lives
- Challenging**      Enables questioning of our own and each other's knowledge, experience, values and beliefs in a way that has more depth than only using the key people we will also access e.g. supervisors and experts in the field
- Supportive and motivational**      In questioning and working together we work towards reducing our own bias. Working in this way allows a depth of sharing which is supportive and motivational
- Hard work/greater time commitment**      Involves hard work and greater time commitment over and above the initial required standard, but brings many rewards
- Culturally safe**      Has a cultural context, which is conducive to our research and learning and is culturally safe to explore beyond our usual research boundaries
- Reducing our own bias**      Collaboration is based on an environment of integrity, honesty, respect and reliability

The characteristics of our collaboration can be summed up in the following diagram.

CHARACTERISTICS OF OUR COLLABORATION



Our collaboration and feminist philosophy provided an ideal environment in which to explore the experiences of women in education and especially in the trades. In questioning ourselves through this collaborative process we believe we were able to bring together issues for women as a whole in educational environments. In outlining our collaborative research process we have clarified and validated our position and shown how the collaborative research process is an important link to the research itself.



“. . . So much happens to us even within the simple circle of a day of which we are unaware. To visit the temple of memory is not merely to journey back to the past: it is rather to awaken and integrate everything that happens to you. It is part of the process of reflection which gives depth to experience. We all have experiences, but as T.S. Eliot said, we had the experience but missed the meaning.

Every human heart seeks meaning: if it is in meaning that our deepest shelter lies. Meaning is the sister of experience and to discern the meaning of what has happened to you is one of the essential ways of finding your inner belonging and discovering the sheltering presence of your soul...”

Anau cara by John O'Donohue 1996

This thesis, the process, the research, telling the stories and the collaboration has all been about seeking meaning, finding our inner belonging and discovering the soul in our experiences as women in education. We trust that from these women's and our experiences you too will find some meaning that touches your soul.

## FEEDBACK FORM THE WOMEN PARTICIPANTS

As part of the research process, we decided to give a draft copy of the thesis to some of the participants for comment. These are the responses so far.

*It's so validating, I kept saying yes, yes, yes! As I read through I kept thinking, 'what about this, or that' and it was always there.*

*Yeah, at last someone noticed!*

*I just think it's amazing. It was a really strange experience. I kept thinking look at what these women are going through, then I realised that was my experience as well!*

*And yes, we were really top trades people, I had forgotten the I got apprentice of the year as well, until I saw Helen's story.*

*Yes it was tough but I think we gained strength from it.*

*Homophobia should also be lesbophobia, for women, that is what it's about.*

*I loved the stories and felt so validated by them.*

*The stories are moving and very beautiful, you have done them credit and really honoured our wymyns work and experience*

*Loved the photography, it holds a presence and tells another story within a story.*

Dear Jesse and Maureen

Thank you so much for letting me read your thesis. I wanted to give you some feedback because I think what you're writing about is important.

As I read the narratives I felt empowered and validated – I identified with so much of what the other women said. Reading my experiences again and theirs for the first time gave meaning to things I have forgotten about – possibly because I am no longer employed in the trades (due to injury). I found the educational research interesting – the perspective of educators.

I found the threads of gender/sexuality, heteronormativity, male hegemony analysis validating – not just as someone who sees herself as a feminist and experiences these things everywhere, but as someone who began working in trades 26 years ago and never had a language then for understanding these things.

I found reading the thesis disturbing and bizarre – I found myself reading it from many different subject positions at once, identifying myself with all these different 'positionings' – I think your work is very important.

The poetry and photos and diagrams are great.

p. 109-111 – about conflict, multiple subject positions, power relations, crazy modelling – so spot on

Yes, despite everything against us, we do SO WELL – but there are costs, schisms and dis-joints of self – the crazy making, betrayal of women (if I join – 'become one of the boys') betrayal of self and other – to fit in. You talk about this stuff on p 114-116.

Judith Butler, homophobia – p. 117 – spot on.

The thesis builds and builds its power as I read on.

p. 118 – self employment – my option to avoid working with men as much as possible – but it meant I was isolated most of the time – this was very hard – but I did it for years and years.

p. 119 spot on

p 120 – women's culture, ideas for education system – yeh.

I applaud your persistence with the collaborative process and your reasons for going with it in the first place.

I found the thesis full of insightful understanding.

To sum up: I'm sorry that I had to read the work over a number of days – nights because there was so much else going on. Reading your work has been thought provoking (sometimes disturbingly so), and extremely validating and empowering. It makes me wonder how I ever did get through what I did – how any woman does. It makes me wonder why I persisted or if I would recommend my experiences to another woman. I think I would – but I would also warn of how painful and disturbing it can be. I'm sure my experiences have made me more fearless and the demystifying of technology and male enclaves of power and knowledge, is an experience which changes the way I view EVERYTHING in the world – and that's not always a 'happy'

thing to possess. In some respects it makes me feel even MORE crazy – because it can seem overwhelming. But the upside for me is the PROFOUND connection I feel to other women like myself, to women like the two of you, who write and research what you see of the same things from your own perspective.

And, to women I don't even know all over the world, who are struggling with the same kinds of things. I know how brave we all are, and how important to each other we all are. So when I feel overwhelmed, I think of us all (even though our numbers seem few at times) – I think of Jesse up the road or my friends in Sydney working with, and for young women and older women, I think of my mother and her mother and her grandmother. I think of myself as a 12 year old watching her brother and his mates with their motorbikes and wanting so much to be part of that – to have access to the technology and the tool sheds and mates knowledge they all had – wanting my own little 2-stroke to ride off over the hills on! I think of my girlfriend working in the institutions that she does, and what she has to deal with. I think of all that and I know what we sacrifice and I know what we gain and I feel so proud to be a part of that – women spirit.

So – I applaud you Jesse and Maureen. Good on you for caring and good on you for following through with such a huge project. I hope it all goes really well for you. And thank you from the 'tradie' for giving our experiences a voice.

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## **APPENDICES**

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## APPENDIX 1—MALE STUDENTS IN FEMALE-DOMINATED TRADES

### Excerpt from a Tutor Interview

I don't think (male students have) ever come in for any flack from the girls or females as to 'What are you doing here hairdressing?'

Hairdressing males are always very much in demand. Bosses will employ a male usually much more readily than a female. I know that is sexist but hairdressing is sexist and hairdressing is very ageist. I think the job prospects are excellent (for male hairdressers). For example one male student is quiet and more introverted, not quite as skilled as a lot of the other female students. He has, nevertheless, found no problem with work experience and older women hairdressers want to take him under their wing and bring him out of himself and they want to mother him. The industry perceives (males) as being more long term. They feel that if a male's doing it, especially a heterosexual male, he'll be very serious about it, because he's going to want a mortgage and a car and wife and a life style and you know that that is totally wrong, as gay fellows want all of that and with knobs on actually. But I think as opposed to women, where the competition comes in, is that he won't need to have a day or two off every month. I'm sorry but that does happen and he won't have girl friend, boy friend problems quite the same and I know that from employing males that is not so.

It's the perception that he will have a more long-term investment in the career. He will stick at the job because he will want those goals I mentioned just now. A lot of hairdressing girls and women do see it as a stopgap between getting pregnant and getting married. I know that sounds awful but it's still 'Be a hairdresser for a while and see what happens'. A lot of them really don't see themselves as being in it when they are my age.

I do know from other teachers that you get sucked into the male thing and give them far more time and far more nurturing than what you would the equivalent female. I'm very conscious of that as I have caught myself as an employer doing that. It was pointed out to me by female members of the staff that I was putting up with far more from the male

apprentices in absenteeism or sheer work application and being harsher often on the girls. And it was because I wanted more males in hairdressing and I think a lot of hairdressers are like that you know. We want more males in our industry so we make more effort. They are precious, we're getting a male on board, let's make the most of him and let's hold on to him, where as they should just swim or sink with the rest of them. That's the way I feel now.

[Women hairdressers] do the same sort of thing. I don't think they are aware of it but they do. I see it; I see it even now with our students going out on work experience. Regardless of the employer's sexual orientation or gender they all do it. I can't speak for gay women in hairdressing so much, because there aren't a hell of a lot of them that I know of but I'm sure they wouldn't get sucked into it or much less likely because they very often know those games because they've had them applied to themselves.

Men are paid more, usually because actually they are more popular as hairdressers. The public prefer men to do their hair, especially the women. He (the male hairdresser) will do the hair from the perspective of a male taste. (The woman customer considers that) if he thinks it looks good on her it must look good to other males and with gay males, (the customer feels) he is doing it as he would love to if he were a women.

Women and Men Participating in Apprenticeships 1997-2001<sup>47</sup>

Industry Training Organisation	1997			1998			1999			2000			2001		
	W	M	% Women	W	M	% Women	W	M	% Women	W	M	% Women	W	M	% Women
Building	4	2952	0.14%	10	4031	0.25%	9	3386	0.27%	11	3064	0.36%	10	2777	0.36%
Electricity Supply	3	398	0.75%	16	897	1.75%	35	2317	1.49%	118	2548	4.43%	130	2655	4.67%
Engineering (+Food & Manufacturing)	61	2713	2.20%	445	3468	11.37%	750	4594	14.03%	968	5233	15.61%	1100	5830	15.87%
Furniture	22	431	4.86%	21	366	5.43%	22	339	6.09%	22	361	5.74%	27	371	6.78%
Horticulture	317	507	38.47%	242	469	34.04%	202	574	26.03%	181	541	25.07%	186	627	22.88%
Joinery	3	506	0.59%	3	396	0.75%	3	354	0.84%	3	359	0.83%	4	379	1.04%
Motor	78	3761	2.03%	74	3537	2.05%	36	2437	1.46%	34	2419	1.39%	40	2547	1.55%
Painting	29	517	5.31%	22	486	4.33%	21	552	3.66%	27	575	4.49%	26	501	4.93%
Plumbers	2	1930	0.10%	4	1586	0.25%	4	1572	0.25%	5	1082	0.46%	4	943	0.42%
Retail Meat <sup>48</sup>	11	491	2.19%	113	420	21.20%	136	308	30.63%	147	311	32.10%	118	348	25.32%
Hairdressing	1346	141	90.52%	1360	139	90.73%	1351	155	89.71%	1323	126	91.30%	1401	116	92.35%

<sup>47</sup> Figures obtained from Skill New Zealand 2001.

<sup>48</sup> The rise in women's participation in Retail Meat is mainly in meat packing, where women are valued both for their presentation of the product and their ability to communicate with the customers (Tutor).

APPENDIX 3—PARTICIPATION OF WOMEN AND MEN IN MODERN APPRENTICESHIPS 2001–2002<sup>49</sup>**Industry by Gender & Ethnicity**

Industry	MALE						FEMALE						Grand Total	% Females
	European/ Pakeha	Maori	Pacific Island	Other	Not Stated	Total Males	European/ Pakeha	Maori	Pacific Island	Other	Not Stated	Total Females		
Boating	151	6	2	4	1	164	1	0	0	0	0	1	165	0.6%
Building & Construction	454	62	6	9	2	533	2	1	0	0	0	3	536	0.6%
Contracting	23	12	0	0	0	35	0	0	0	0	0	0	35	0.0%
Electricity Supply	82	38	2	2	0	124	5	3	0	0	0	8	132	6.1%
Electrotechnology	243	14	3	15	0	275	6	0	1	0	0	7	282	2.5%
Engineering	419	61	9	22	0	511	4	0	0	0	0	4	515	0.8%
Flooring	61	8	1	2	0	72	0	0	0	0	0	0	72	0.0%
Forestry	207	181	8	2	0	398	0	8	0	2	0	10	408	2.5%
Furniture	36	1	2	1	2	42	1	1	0	0	0	2	44	4.5%
Horticulture	76	12	1	0	4	93	11	7	0	0	1	19	112	17.0%
Motor	314	40	5	4	0	363	8	2	0	0	0	10	373	2.7%
Plastics	3	1	3	0	0	7	0	0	0	0	0	0	7	0.0%
Printing	65	6	1	1	0	73	12	1	0	0	0	13	86	15.1%
Public Sector	9	5	2	1	0	17	15	8	13	0	0	36	53	67.9%
Road Transport	11	1	0	0	0	12	0	0	0	0	0	0	12	0.0%
Telecommunications	28	2	1	4	0	35	1	0	0	0	0	1	36	2.8%
<b>Grand Total</b>	<b>2185</b>	<b>450</b>	<b>46</b>	<b>67</b>	<b>9</b>	<b>2757</b>	<b>66</b>	<b>31</b>	<b>14</b>	<b>2</b>	<b>1</b>	<b>114</b>	<b>2871</b>	<b>5%</b>

<sup>49</sup> Figures obtained from Skill New Zealand, September 2002.

## APPENDIX 4—NATIONAL STUDENT ENROLMENT FIGURES

Shown under the International Standard Classification of Education Headings (ISCED) Level 3 Trade Certificate, Local Polytechnic Award

## Percentage Of Female Enrolments

SUBJECT	SUB TOPIC	1994		1995		1996		1997		1998		1999		2000	
		% Females	Total Students	% Females	Total Students	% Female	Total Students	% Female	Total Students	% Female	Total Students	% Female	Total Students	% Female	Total Students
Commercial and Business	Business computing/info systems	35	1547	61	946	37	1482	48	1397	49	1648	46	2014	50	2308
	Bus admin, marketing, sales	54	3126	56	3826	55	6199	59	6001	60	6381	62	7252	64	7845
	Clerical or office systems	93	2373	92	2569	92	2079	92	1407	90	1915	91	1423	90	945
	Financial management, investment analysis	60	15	54	71	49	78	63	171	62	175	66	255	55	225
	General commercial and admin	58	495	61	628	71	266	64	549	68	696	70	698	65	989
	Receptionist	100	27	95	127	97	37	100	27	100	25	96	23		Not listed
	Secretarial programmes	90	375	96	308	88	359	92	215	94	250	98	95	94	98
	Shorthand/typing, word processing	100	8	81	52	72	78	100	10	100	12		Not listed		Not listed
	Typing, word processing, keyboard	46	369	62	573	79	418	64	129	100	1	100	3	100	4
Computing	General computer related	54	24	45	107	46	11	0	0	0	0		Not listed		Not listed
	Computer awareness	48	477	51	512	48	413	58	650	61	1201	59	1022	60	1426
	Computer operation	56	184	57	195	45	84	48	213	38	112	31	108	35	52
	Computer programming/analysis	36	59	38	68	32	282	31	1564	33	1551	34	1761	30	1233
Industrial trades and crafts	Building	2	1300	2	1646	2	1040	1	1256	1	1567	3	1126	4	1027
	Clothing and related	89	280	91	393	91	252	84	140	84	269	85	280	80	484
	Electrical and electronic	2	1688	2	2946	3	1945	2	1383	3	1406	3	1339	4	1432
	Food processing	48	981	55	1741	61	1096	15	81	10	131	8	53	42	85
	General, in a range of trades	5	37	13	15	22	213	30	289	22	55	13	271	0.7	135

SUBJECT	SUB TOPIC	1994		1995		1996		1997		1998		1999		2000	
		% Females	Total Students	% Females	Total Students	% Female	Total Students	% Female	Total Students	% Female	Total Students	% Female	Total Students	% Female	Total Students
Industrial trades and crafts	Graphic arts and printing	48	286	57	233	54	289	42	215	48	201	56	209	49	224
	Heating, air cond and refrigid	3	108	0	174	0.6	169	0	90	0	0	0.8	126	1	158
	Industrial design	32	41	0	0	0	0	0	0	74	19	33	43	55	22
	Leather	12	100	7	43	0	0	0	0	0	0		Not listed		Not listed
	Marine/boat building	2	111	0.4	227	2	266	3	204	5	176	3	184	13	326
	Mechanical and mechanical repair	14	2164	7	1814	3	2571	4	3069	3	3270	3	2468	2	3816
	Metal	2	1076	2	793	2	958	2	651	2	1081	3	1051	2	884
	Painting and decorating	11	132	20	186	3	72	7	58	6	100	13	48	11	44
	Panel repair/coach building	3	317	4	210	3	258	3	291	8	465	5	506	4	710
	Plumbing, gasfitting, drainlaying	0.5	388	0.4	261	1	610	1	695	0.6	794	0.9	819	0.2	753
	Clothing and textile	100	12	93	14	65	382	0	0	0	0	85	280	80	484
	Watchmaking/manufacturing jewellery	50	28	56	39	41	17	40	20	58	36	53	43	61	56
	Woodworking	3	210	6	405	6	219	6	385	10	339	11	278	7	289
	Engineering	Civil	4	48	9	43	0	0	0	0	0	0		No entry	
Draughting and design		11	55	23	86	12	49	7	69	22	41	20	60	8	37
Electrical		4	372	5	332	6	54	3	223	3}	331}	3}	421}	3}	349}
Electronics		0	36	6	83	7	55	4	115	}	}	}	}	}	}
General engineering		17	278	18	328	17	118	0	0	0	0		No entry		No entry
Mechanical		5	395	5	508	16	203	8	66	3	117	7	124	7	90
Technology		0	0	4	48	4	56	16	25	6	31	15	33	25	67
Agric forestry and fishing	Fishery	6	81	4	47	19	37	15	68	11	93	11	108	15	72
	Horticulture	38	1415	42	954	46	1093	46	1099	39	1156	40	1418	43	1464
Service Trades	Hairdressing and beauty	92	1316	92	982	92	771	92	675	91	865	93	1004	94	1114
	Hotel and restaurant	56	1926	60	1655	55	2096	56	2721	53	2888	52	2859	55	2626
	Retailing/sales skills	43	641	59	678	45	1218	46	565	55	575	56	554	55	675
	Tourism and travel	76	773	73	1619	76	1655	79	1217	79	1580	64	833	82	1321
	Tourism and hospitality	67	467	68	1365	72	798	62	457	64	696	82	1408	70	615

## APPENDIX 5—INTERVIEW LETTER

Dear

### RESEARCH INTO NON-TRADITIONAL AREAS OF STUDY FOR WOMEN

We are currently doing research to find out what experiences students have in courses, which are traditionally 'male'. We would like you to take part in this research.

It is hoped that with this information, we can take steps to improve the experience and success of students in these areas and to encourage more students to have a greater choice of subjects.

As you have recently attended a course at polytechnic, we would greatly appreciate it, if you would agree to be interviewed some time in February or March.

Jesse Summers and Maureen Gray are undertaking to interview present and past students. They will attempt to make themselves available at times convenient to you. The interview would take about an hour and could be held at the polytechnic or at a place of your choosing.

Although it is preferable to have a face-to-face interview, if this is impossible for you we could arrange to talk to you by phone. A further option could be for you to fill in a questionnaire, although we would see this as a last resort.

The best times for us are after 3 pm any day or 8.45 am on Wednesdays and Thursdays, but we will accommodate your preference. Please fill in the attached form and return to us as soon as possible.

Thank you

Yours sincerely

## WOMEN STUDYING ON NON-TRADITIONAL COURSES AT POLYTECHNIC

- 1 What course(s) you have done or are presently doing at polytechnic?
- 2 When did you start the course(s)
- 3 How did you first hear about the course?
- 4 Why did you decide to attend the course?
- 5 Is your course full-time or part-time?
- 6 What hours per week do you attend?
- 7 Would you prefer to do full-time or part-time courses?
- 8 What job do you expect to have at the end of your study?
- 9 Have you been involved in any other study courses, ie night class, community course?
- 10 If so, what?
- 11 Have you ever been on an all-women or majority women course?
- 12 Do you think this made/would make any difference to how you coped with the course?
- 13 Why?
- 14 Have you withdrawn from any courses or changed from full to part-time?
- 15 If so, why?
- 16 Are there any other women students in your present class?
- 17 If so, how do you interact with women students in class?
- 18 How do you interact with men students in class?
- 19 How do you feel, studying in a course made up mainly of male students?

- 20 What was it like on your first day? (orientation, getting to know class, information on course etc)
- 21 What was it like settling into your course? (relationships with tutor/class, support services, information etc)
- 22 Were there any changes as the course progressed?
- 23 What are your observations of other male/female students on site?
- 24 Are your tutors mainly male or female?
- 25 Does this make a difference for you?
- 26 If so, how does it make a difference?
- 27 What comments would you make about your tutors? (helpful, fair, biased)
- 28 What are the advantages/disadvantages of having a male/female tutor
- 29 What are the advantages/disadvantages of having a tutor with the same/different cultural background as yourself?
- 30 How did your tutor address attitudes or behaviour in the classroom which you or others found offensive or uncomfortable to deal with?
- 31 Do you think, as a female student you are singled out in class?
- 32 If so, what effect did this have on your participation? (course content, class relations)
- 33 What makes it easy or difficult for women attending non-traditional courses? (include finance)
- 34 Outside of the polytechnic, what are the attitudes of your friends, family or workmates to you doing this course?
- 35 Was access to equipment in the class fairly shared?
- 36 Do you think you have to be seen to be better than male students to gain acceptance while you are on the course?
- 37 Did the timetabling of the course present any problems for you? (transport, childcare, work-place experience)
- 38 What skills would have been useful to have before beginning the course?
- 39 Do you think male students would have needed these skills as well?

- 40 What, if any, physical aspects of the course presented problems for you? (lifting, dirt, heat, sitting, fumes, noise, equipment)
- 41 If so, would these be a problem for males as well?
- 42 Where on campus do you spend your breaks and lunch-times?
- 43 Are there any places on campus that you avoid?
- 44 If so, where and why?
- 45 Do you join in any informal activities with your class?
- 46 Have you developed any strategies which help you deal with being a minority on your course?
- 47 If yes, what strategies have you developed?
- 48 If you had all the power and resources available what changes would you make to the course content, tutors, timetable, attitude in the classroom?
- 49 What support services do you know about?
- 50 What other support services would you like to have available?
- 51 Please comment on anything which may not have been covered.

## WOMEN STUDYING ON NON-TRADITIONAL COURSES AT POLYTECHNIC

- 1 What courses you have been involved with, or know of, that have women students as a minority?
- 2 Do you know of any women who have withdrawn from such a course?
- 3 If so, why did they withdraw?
- 4 What are the job prospects for women students in your skill area?
- 5 How many male students go on to work in their study areas?
- 6 In your experience do women prefer to study full-time or part-time?
- 7 Have you ever taught an all women or majority women group?
- 8 If so, what differences did you encounter?
- 9 What is it like for women settling into non-traditional courses?
- 10 As the course developed, how was it, on the course, for women?
- 11 How do you feel it is for women studying on a mainly female course?
- 12 How did the male and female students relate to each other?
- 13 How did the women students relate to you as a tutor?
- 14 What would you consider offensive attitudes or behaviour in a mixed gender class?
- 15 What strategies do you use in the classroom to address offensive attitudes or behaviour?
- 16 If offensive attitudes or behaviour do occur who generally instigates it?
- 17 Do you ever feel it necessary to single out students in your classroom?
- 18 What are the explanations for your answer?
- 19 What strategies do you use to enable students to have equal access to equipment used in the learning situation?
- 20 Do you think women students have to be seen to be better than men students to gain acceptance on the course?

- 21 What are the reasons for your answer?
- 22 How does the classroom culture change when there are women attending the course?
- 23 What barriers do you think there are to women attending non-traditional courses?
- 24 What skills or knowledge would it be useful for women students to have as prior learning?
- 25 Do you think these applied to female students as well?
- 26 What, if any, physical aspects of the course may present problems for women?
- 27 Do you think these would apply to men as well?
- 28 What is your opinion on having male tutors in a traditionally female work area?
- 29 What support is available for introducing students into the workplace?
- 30 Where do women students spend their breaks and lunch-times?
- 31 Are you aware of any places on campus that women students avoid using?
- 32 If so, where and why?
- 33 Do women students join in any social activities with the men members of the class?
- 34 What strategies do you use to assist male minorities in your class?
- 35 If you had all the power and resources available, what changes would you make to classes with women as a minority? (course content, timetabling, attitudes in the classroom or other areas)
- 36 What support services are available for women in non-traditional study areas?
- 37 What support services would you like to see available?
- 38 Please comment on anything which may not have been covered.

## APPENDIX 8—RESEARCH PARTICIPANTS

### Information On Participants Including Course, Year And Employment

Course	Type of Course	Year	Job at end of course
Amenity horticulture	18 week full time	1996	?
①Automotive	Auto bridging Automotive Entry	1996 Feb 1996 July	Hoped for apprenticeship Did not complete
Automotive	Pre-apprenticeship	1992	None
①Automotive— machining	1 year Block trade training	1994 1995	Student Apprenticeship
Automotive— Refinishing	Stage 2 Block trade training	1996	Apprenticeship
Canvas fabrication	Block trade training	1996	Apprenticeship
Commercial drivers	18 week full time	1996	Tourism driver
Commercial drivers	18 week full time	1996	Tutor—driving safety
Computing	CBC	1995	Computing position
Computing	CBC, ACBC	1995 start 1996	Student—Hopes for help desk, PC support
Computing	ACBC	1994	Student, hopes for user support or networks
Electrical	NZCE	1996	Student, hopes electrical technician
Electrical	Registration Block course	1996	Telephone technician
①Engineering	Basic Mech Engineering Trade Skills (BMETS)	1993	Apprenticeship
Fitting and turning	Block trade training	1994–97	
Engineering	Basic Mech Engineering Trade Skills (BMETS)	1995	Apprenticeship
①Fitting and welding Welding	Block trade training Certification for work	1988–1991	Apprenticeship Tradesperson
②Horticulture and Tiling	Trade training	1980s- 1990s	Apprenticeships
Joinery	18 week	1996	Difficult to gain employment, decided not to pursue trade
Painting and decorating	Block trade training	1995	Apprenticeship
Painting and Decorating	Block trade training	1995	Apprenticeship
Panel beating	Stage 1 and 2	1995	Apprenticeship
Parts and access		1996	Parts person
Upholstery		1996	Work in upholstery
Welding	Evening class	1996	For sculpture

① These students stated that they attended more than one course.

② This student studied and worked in two non-traditional trade areas.

## APPENDIX 9—EXTRACT FROM A TUTOR TAPE TRANSCRIPTION

- Jesse Have you ever sent any of the women out [of the classroom] for any reason?
- Tutor I don't like to try to single out. I will have taken one only female student to one side and suggested to her that her behaviour was causing concern. That was because she was well aware of the fact that she was an extremely attractive person and she was using that to an advantage. What she, what she saw, [louder over Jesse] what she saw, what she saw as an advantage I saw as a disruptive element.
- Jesse How she was doing that?
- Tutor The way she conducted herself physically, was, perhaps I can use the term 'somewhat provocative' in the way she decided to wear her clothing. [It was] what we should, maybe many people would say, that should not cause the male of the species to lose sight of what they are doing. It would be, I think, denying nature and I don't want to. I don't want to deny nature.
- Jesse So how did you deal with that situation?
- Tutor [Talking over Jesse] I just told, said, said, said, I took her in and said that ..., what she was doing was not helpful in the classroom, in the workshop situation. I would like, think that she would be sensible and do something about it. So I carried on talking about it of course. And she said 'Well what?'. 'Cause they tend to get a little bit stroppy to start with. All I do is just say, well, these are the things that I perceive as causing the disruptions.
- Jesse And they were to do with the way that she wore her clothes?
- Tutor Yeah, and the way she held herself and the way she responded to questions or to talk in the workshop. She was a very quick wit and in other circumstances it might have been seen as probably very funny but, it was, it was not appropriate in that setting in my belief. After all it is a subjective call.
- Jesse So was she trying to sort of be quote, unquote 'One of the boys'?
- Tutor No, no, she was definitely wanting to be one of the girls and she wanted the boys to know that she was a girl.
- Maureen What was the result after you had talked to her?
- Tutor I can't speak for other areas, but in my area she amended her ways progressively. What I mean is that she, I think that she was probably, fighting against, she probably saw it as fighting against authority, authoritarianism . . . she dressed more modestly.

## APPENDIX 10—NOTES FROM A KEY ADVISOR

### **On Women Peers**

Only other woman working here is an apologist for women, she is an apologist for Maori ... that's how she has survived in her environment for the last 12 years ... She was the first person to trash me out and the last person I would look to for support ... If she thought I was going to rock the boat, she would be right in there undermining me. It is actually for me better to be the only woman around than to look for support there.

My understanding of the men I work with is that they are 'arseholes' and I don't get tricked by it at all. But my understanding of women generally is that I expect more of them and so get incredibly disappointed when I don't get that.

Just having a woman to work with is not enough It has to be a woman with some political understanding, because otherwise I expect her to be different and she's not and that's not fair on her either.

### **Changes in My 'Self'**

I'm heaps more brash than I would ever be, in order to get what I have to say heard in my environment. I have to just be rude and mean, not just swearing but that whole really brash male behaviour, because if I just act like I would normally that's just silence to them.

There were three of us, there were these two men and me talking about it and it shifted from me being a part of it to them talking to each other and saying why it hadn't been done right. I had to actually stand up and say really loudly '[name of person], I'm telling you that I have done it right, I've fixed it, I've fixed it correctly and it's broken, it's not working'. I had to do that twice before he recognised me, and then he didn't follow up.

I had to create this physical presence as well as almost shouting at him before he recognised what I was saying.

### **Undermining Women**

They think that I am useless at my job because they had been told by the chaps over the road subtle undermining things. It makes me feel like crap.

The other tutors - they come into my classroom, one of them even took over my class, interrupted me and started presenting information that is against what I was saying or reinterpreting, re-saying what I was saying as though I wasn't saying it. Other lecturers have come in saying 'Why are you doing that, you are doing that the wrong way' to my students. They don't say anything to me.

When challenged, they say, 'Oh what's the problem with you?'.

There was no induction to my job. I walked in, I started teaching 8.00 am on the same day as the students started, and he spent the first 6 weeks telling me what I had done wrong. 'You shouldn't have done this, you shouldn't have done that'.

I get real middle class and really patronizing, so he stopped telling me off and started to tell my co-lecturer to tell me off instead.

### **Communication Problems**

Communication within the department is a problem. We don't ever have team meetings and they only communicate during morning tea, afternoon tea and lunch time. And that's when I choose not to be there

I would, have nothing to say, and they would have nothing, to say or if they do have stuff to say it's racist, sexist, anti-students.

### **Swearing**

I had a visitor who said 'How do you go on in this environment, because, there is an awful lot of swearing going on?'. I looked at him and I said 'Oh, is there?'. I hadn't noticed [I had become desensitised]. Does that mean that I have been swearing a lot, because to me, if I say crappy around my students, that's across the line. Am I actually swearing at my students or around my students, without even realising it?

### **Lack Of Facilities For Women And Sexual Harassment**

At the start of the year there are always the students who bark at me [meaning they are attracted to her]. There are comments and stuff like that. I don't do anything. There was one time when I was about to do something then I thought, no, I'm just going to leave that. Then it was remarkable, the change, when they realised that I was a lecturer. And that really sucked, because it was like this was obviously happening to the other women. We talked about it with the other women.

One woman had to get changed in the lift and the boys had pushed the button so that the doors would open.

If there is a woman - well not a woman, but a chick or a bird - in your workplace, you have to get rid of your calendars. That's basically their interpretation of what harassment is. Not that you should never have them, that you should get rid of them because of the woman.

### **Invisibility**

When I was training in a workshop, the men were obnoxious. Not friendly, no eye contact, bumping into me, it's not about anything specific that people have done or the chaps have done. It's even what they haven't done. They won't look at me, they won't chat even if I'm directly speaking to them. They are not looking or they have the grunt reply. It's just like [they] haven't noticed you.

I've had enough of being, in a male-dominated environment for a little while. In terms of a work environment it's been a real shock, because my work environment until fairly recently has been women-oriented. I would like to be able to do my work on my own or somewhere much more conducive to my happiness.

### **Effect on Women Students**

More women signed up this year. I have two women in the second year. Last year I had one. The woman in last year said that her experience and other women's experience had been their participation kind of shut off and she was really happy to have me. There are five women this year in first year. It's more culturally diverse too. It was just a bunch of white guys before. Now there are Maori, Pacific Islanders and even a Japanese woman. It's kind of hard to tell if you have made a difference.

## APPENDIX 11—COLLABORATIVE RESEARCH AGREEMENT

This agreement is between Jesse Summers and Maureen Gray (participants and researchers).

During the research Jesse and Maureen will aim to ensure that

- Strict confidentiality is provided for the other participant
- No information belonging to the other participant will be used without her permission
- No information that may affect the other participant will be used without her permission
- There will be a clear acknowledgment of the other's work
- Any shared work will be divided fairly and agreed upon
- The ethical requirements and general responsibilities of the research will be adhered to
- General expenses will be shared equally
- Interim and final completion dates will be adhered to or where this is not possible there will be an agreement on change
- We will encourage each other to share knowledge and experiences gained through this research with each other
- Communication will be maintained i.e. at least once a week
- Professional standards in the quality of the research will be maintained
- There is ongoing discussion and clarification of our aims, methods, outputs and expectations
- There is joint ownership of the research material
- Any publication of material must be jointly agreed
- Joint Authorship will be clearly given on any written material—there will be no 'first author'.

We undertake to fulfil the above terms of the agreement to the best of our ability.

Signed ..... Signed .....

Dated ..... Dated .....

CONSENT TO PARTICIPATE IN RESEARCH

Having agreed to the interview being tape-recorded I now agree that the researchers Maureen Gray and Jesse Summers may use the recording as part of their research material.

I understand that the tape recording will be

- held for reference in writing up the report and validation of the research
- only available to the researchers above, assessors and moderators
- held in an appropriate secure place
- destroyed three months after the research has been assessed

or (please delete one option)

returned to me at the address given below.

(address).....

.....

I give the right to use my copyright for the material gathered during the interview for the purposes of this research and the publications that follow.

I understand that I will/will not be identified in any published use of the information.

NAME .....

SIGNATURE .....

DATE .....

## STUDENTS ATTENDING NON-TRADITIONAL COURSES AT POLYTECHNIC

### CONSENT TO PARTICIPATE IN RESEARCH

We are exploring the issues involved in women studying on courses that are seen as non-traditional education areas.

During this research we will be gathering data by various methods, eg statistics, other research, questionnaires, and interviews with students and polytechnic staff.

We hope to record your experiences of such courses so that the polytechnic can encourage and support you and other students in the same situation.

As part of the research process we ask you to sign the consent form below. This form will protect your privacy and interests..

- 1 USE I agree that information given in the questionnaire can be used by the researchers and can be quoted in research reports.
- 2 PRIVACY I understand that I will not be identified in any published use of the information.
- 3 COPYRIGHT I hereby transfer the copyright of the material contained in the questionnaire to the researchers.
- 4 STORAGE I agree that the questionnaire will be stored in a secure place and will be destroyed three months after the completion of the research.

NAME .....

SIGNATURE .....

DATE .....

**In some cases it is necessary for us to clarify an answer. If this is acceptable please add your telephone number at the bottom of the form.**

TELEPHONE NUMBER .....

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