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WOMEN AND TRAINING:
A CRITICAL ANALYSIS

A thesis in partial fulfilment of the requirements for the degree of Master of Education at Massey University

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ABSTRACT

From the point of view of its implications for women, this thesis critically investigates the official discourse of training in New Zealand in the late 1980s and 1990s, and explores its effects within the Polytechnic sector. The more theoretical side of the project involves discussing the changing meanings of 'training' and its entangled relationship with 'education'. I then conduct a thorough examination of the key statement of the new training discourse - *Education for the Twenty-first Century* - and give a twofold account of its structure and meaning. One part of this discourse is oriented towards social pluralism and equity, but this strand is undercut by the dominant 'human capital' perspective which ultimately holds little prospect for real advance in women's training and labour market situation.

The more empirical dimension of the thesis involves a quantitative analysis of enrolment statistics, a discourse analysis of Polytechnic reports, and a questionnaire/interview schedule with senior staff within one Polytechnic. Overall, there is little evidence that government strategy and ideology are contested within Polytechnics, and whilst women's participation rates may be buoyant, the content of their training courses and the consequent image of what sort of life women make for themselves could be seen as surprisingly traditional.

At all levels of the work, I try to highlight important indications of progress or contradiction, where they exist. But on the whole, the sobering thought emerging from the thesis is that there is still a long way to go for a properly non-sexist training agenda.
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My interest in women and training is the result of a number of years' experience as a trainer working in a variety of adult and community education contexts, and also as a frequent participant in professional training. Much of my work and thinking in these courses could be said to have been inspired by feminist concerns, concerns covering a wide-range of disadvantage, and therefore scope for positive action; for example, the inappropriate programmes for young women in youth clubs, the dearth of female 'leaders' in the Outdoors, and the very limited training opportunities for women returning to the workforce. Involvement in these training initiatives allowed me to contribute to improving the skills and self-images of particular groups of women, and I certainly saw some real, positive and often even 'empowering' results. Yet such gains as have been made have always felt like an uphill battle against still-entrenched attitudes amongst many men, women and local government authorities alike, about standard gender roles and likely social destinations. So, the kinds of training programmes I participated in or led, whilst accepted to an extent as a 'good thing', were usually funded on soft moneys, were temporary or one-off in nature, and generally remained outside of the 'mainstream'.
In addition, some courses, or specific parts of them resulted in quite negative experiences for both 'trainees' and trainer alike. In trying to come to terms with and minimise such sessions, there seemed, longer term, two main ways in which I could enhance my own contribution and understanding. Firstly, I felt I probably needed to continue to improve my own practical 'skills'. To that end I continued to attend various staff-development workshops and training sessions. At the same time, the 'structural' pressures which mitigate against the full success of 'training for women' initiatives go beyond matters of individual competence. I therefore felt the need to extend my thinking about the whole question of gendered training and its wider socio-political context, and the result is this thesis.

What counts as training and what does not? Why are some forms of training recognised and others not? Why do some jobs require training and others do not? An interest in such questions, from the point of view of women, is the focus of concern behind this work.

My shift in location from the UK to Aotearoa/New Zealand, and the consequent dislocation from my own particular career trajectory in Britain, seemed to help considerably in getting the kind of 'distance' necessary to look at the general issue afresh, and I was also greatly motivated by the idea of researching in a new (but still related) political context the apparent changes in the 'official' approach to education and training policy, again particularly as it related to women. The process of working on the thesis has thus proved to be a stimulating challenge in the way that it brought together theoretical, political, empirical and practical issues for me.

I want to express thanks to all those who gave their support and encouragement in the course of this work, especially to my supervisors Anne-Marie O'Neill and Celia Briar; to Sue Tait for help with computing and tables; to staff at 'Midland' Polytechnic; and to various personnel at other polytechnics who were generous with their time. Finally I want to thank Gregor McLennan who in his own generous way made sure that the thesis became a reality.
INTRODUCTION

There has been a renewed interest in the area of training in recent years as evidenced by the increasing numbers of articles in newspapers in New Zealand and elsewhere. Predictions of skills shortages and the consequent effects on the nation's ability to compete in the international marketplace are commonplace. Training is promoted as a way of rectifying these problems as well as those of unemployment, dependancy on welfare, entrenched work habits and economic regeneration. Government-sponsored schemes promote training for the unemployed, the disabled, lone parents, redundant workers, school-leavers and the long-term unemployed. Such is the accepted currency of the term that its meaning and purpose is seemingly accepted without question. Yet apart from some academic attention the term is rarely defined and there is little if any popular discussion about what training is, how well it is working, who it works for, or indeed if there are even any alternatives.

The basic thought process behind the project was that in a labour market which already advantages men, new ideological and policy initiatives which bind 'education' and 'training' to the current needs of the capitalist labour market even more tightly are likely to further disadvantage and marginalise women. It made sense in that context to look at how training is defined and operationalised in official government discourse, and how training is promoted and
provided specifically at Polytechnic level, since this sector is arguably the most central and pressure-sensitive when it comes to delivering vocational education. It would have been highly desirable to have gone beyond provision and participation rates to see what labour market outcomes were for women who have taken accredited training courses at Polytechnics, but that kind of extension was basically too large an empirical task to undertake for this dissertation.

On the whole, the connections I make seem to confirm the idea that women are still being disadvantaged in the labour market by current training emphases. This theme should not however be taken as my only concern. I have found training discourses to be interestingly contradictory at all levels of the 'transmission' process, and it is important to recognise that different 'stakeholders' in the area have different ways of operating those discourses. For example, it is not even clear if government perceptions of what industry 'needs' match up in any obvious way with what 'business' thinks it needs.¹ But there have been numerous policy reports over the past two decades which confidently speak of the industrial, technological and educational needs of the nation as if these things were 'neutral' or factual matters.² In that regard, one of the things I have been persuaded of in the course of this investigation is that even where, as with women and training, we are dealing with tangible causes and effects which affect real lives, these mechanisms nevertheless operate through discursive means - through often vaguely expressed 'goals' whose definition and implementation are actually very contestable. In the thesis, I do not adopt any doctrinal method of 'discourse analysis', but more generally emphasise how the ideologies and practices of training are discursively constituted. For that reason alone, even where it seems that women have little to gain from current training

¹See, for example, a paper given by Roger Kerr, director of the Business Roundtable, to the Institute for International Research Conference on Skill Development and Industry Training in which he challenges a number of tenets, fundamental to government's strategy on training, for example, the assumption that New Zealand is under-investing in training (Kerr 1994:1).
initiatives and ideologies, it could be a negative move for feminists and educationalists to just 'write training off' as a fait accompli.

The thesis is structured as follows. Chapter One conducts a discussion of three main background dimensions of women and training. The first is to identify the key possible meanings of the idea of training, and the second is to identify key stakeholders in the training policy environment of recent times. That 'environment' has been the creation, to a large extent, of 'New Right' movements and governments, and some account of the 'restructuring' impetus in education and government in New Zealand, as elsewhere, in the 1980s and 1990s is inescapable, familiar though it is by now. Thirdly, the important theoretical and empirical literature on women and the labour market is synthesised.

The next two chapters explore how the discourse of training is presented in key government documents, especially Education for the Twenty-first Century (hereafter E21C). I understand this text and others related to it as containing different elements, a 'pluralist' and a 'business' element, and operating on different levels, a general 'societal-ideological' level and a more technical one concerned with training mechanisms and targets. Chapter Two discusses the important theoretical issue of discourse and ideology, then identifies the element of social pluralism in the discourse of E21C. Chapter Three continues the discussion by examining the market/business dimension. Through these analyses I adopt a conception of a dominant ideology (capitalistic, patriarchal) for purposes of critique, whilst accepting that a discourse perspective makes it difficult to assert that such strategic official discourses as those I examine have only one 'line' and serve only 'dominant' interests.

Chapter Four examines how the polytechnic sector filters the general state-led imperatives of training. Polytechnic discourse is explored through an examination of their public statements, goals and reports with respect to training. Key themes here are
'participation', 'achievement' and 'equal educational opportunities', which are often woven closely together (somewhat uncritically) in Polytechnic discourse. I analyse both the discourses and extensive data on polytechnic enrolments at this level to question just how 'effective' the commitment to equity, specifically gender equity, really is. Even if the commitment is there, the practice and outcomes may not fulfil the intentions. A survey I conducted, eliciting the views of senior management at one Polytechnic, adds a further dimension to the way we understand the overlaps and tensions between equity and efficiency in training provision.

In the Conclusion, I summarise my analysis and findings, and ask whether there is any point in feminists trying to enter the training discourse in order to bring about anything more positive for women. If it is true that current training initiatives maintain rather than reduce women's marginalisation, perhaps in the end it we just have to 'give it away' as an essentially patriarchal notion. Whilst this thesis has given considerable support to that standpoint, I feel that ultimately that is too negative a stance to take.

It should be apparent from the above, I hope, that the thesis is conceived as a contribution to critical, feminist research in New Zealand. It is worth trying at this stage to expand on these commitments, and to indicate how they have influenced the methodology and presentation of the research undertaken.

First of all, the project is envisaged as 'critical', in the sense that critical social research 'does not take the apparent social structure, social processes, or accepted history for granted. It tries to dig beneath the surface of appearances. It asks how social systems really work, how ideology or history conceals the processes which oppress and control people' (Harvey 1990:6). As I understand it, training remains a formidably 'technically' defined area, where the 'appearance' is a matter of neutrally conceived skills. Yet the social reality is far from that, being much more a matter of the way in which different forms of labour are categorised, rewarded, and
ranked, and in which the hegemonically dominant labour market imperatives (capitalist, patriarchal) are more or less 'served' by the new initiatives in education and skilling.

Secondly (and very much relatedly), my work is motivated by a basically feminist concern to show how - in spite of many advances in some areas of women's social position and working roles - the current hegemonic conception of training continues to favour men and men's working roles. If that is the substantive orientation I take, what methodological consequences has that had on the research process?

This is a difficult question to answer precisely, because the idea that feminist research has to have its own very special and privileged methodological strategies which fit a uniform feminist theoretical position has been superceded by the notion of a number of feminist standpoints. Thus, with no governing theoretical position there are no special, privileged methodological strategies. Rather, it is claimed, the substance and wider political stakes of the subject matter should be the central determinant of whatever methodological aids and results seem relevant and appropriate (Abbott & Wallace 1990:203-7). The following two aspects in particular reflect my preferred stance. Firstly, the selection of the topic itself, and its 'potential to help women's lives' (Jayaratne & Stewart 1995:230), and secondly the avoidance of 'methodic monopoly', and, 'more importantly, method-led research' (Harvey 1990:8). This is important for me, because I have incorporated elements of several research methods: discourse analysis, secondary historical sources, theoretical appraisal, quantitative data manipulation and analysis, a questionnaire and semi-structured interviews. Following Harvey, I see each of these elements as having its own validity and contribution to make in a project like mine.

Whether or not my claim that the thesis is feminist in orientation can be guaged by looking at suggestions by such authors as Stanley and Wise and Sandra Harding. The selection of the problem and
methods of research, Stanley and Wise argue, should be motivated by a commitment to feminist values rather than anything supposedly more 'disinterested'; and it should begin from an appreciation of 'women's experience of women's reality' (Stanley & Wise 1990: 154, 160). As explained in the Preface, my own experience as a trainer, coordinating and reflecting upon the experience of other women being 'trained' is the origin of this research. And throughout the investigation has been conducted in the hope that it might contribute in a small way to 'knowledge for change' (Stanley 1990: 15), 'for women' (Harding 1987: 6), and for 'the potential to help women's lives' (Jayaratne & Stewart 1995: 230). As Patti Lather puts it: 'very simply, to do feminist research is to put the social construction of gender at the center of one's enquiry' (Lather 1995: 294).

Having said that, it is also true that this project appears not to implement one of the things mentioned by both Stanley and Harding as (ideally anyway) a hallmark of specifically feminist research, namely that the researcher must be located 'on the same critical plane as the subject matter' (Harding 1987: 8, cf. Stanley 1990: 12). Actually, it is quite hard to grasp exactly what this concretely-sounding advice really means! Certainly, I can appreciate that if I was doing purely qualitative research in a study which was directly examining some aspect of women's experience, then it would be imperative not to 'objectify' those experiences, to fully declare and negotiate my own experiences and interests, and to involve those women as willing research partners in whatever way seemed right from a feminist standpoint. But in fact, my 'object' of enquiry is not intrinsically qualitative, and has a whole range of research subjects and 'products' as its topic: government policies, documents, polytechnic manifestos and statistics, and so on. As such, knowing that the thesis is feminist in Lather's sense cited above, I have felt free to develop 'whatever methodological aids and results seem relevant and appropriate' (Abbott & Wallace 1990: 203-7). I would emphatically add that the obvious extension of this thesis would be to find out what the women who have recently been 'trained' through polytechnics actually think of their experiences, outcomes and
prospects; indeed it was part of my original intention to include that dimension. However, I quickly came to realise that such a research task was far larger than I had time, space or resources for as a part-time Masters student.

Thirdly, as mentioned, the main methodological thrust of the thesis, if there is one, is ‘discourse analyses’, an approach utilising a critical materialist concept of language to ‘deconstruct’ official texts (Belsey 1980:105). It has been chosen precisely because its explicit purpose is to dig beneath the surface, to ‘deconstruct’ dominant discourses without necessarily saying what the perspective-neutral ‘reality’ is out there. Whilst this is actually one favoured feminist approach today, there are difficulties with it. These, as I argue in Chapter Two, concern ongoing questions about whether the critical concept of ‘ideology’ can be completely dispensed with, as some ‘discourse theorists’ seem to maintain.

Finally, this is a contribution to New Zealand critical feminism, but we are dealing with general global processes here, as the widespread references to the international feminist and other literatures attest. Here the desired approach is to ensure a blend between ‘universal’ and ‘specific New Zealand foci/texts’, trying to avoid the insidious issue of which (the local or the global) is to be preferred or privileged. I am proceeding on the basis that this is a false issue, and that the general and the specific flow ‘seamlessly’ into one another, and so have chosen to try to blend texts and references in this way too.
1. Introduction

This chapter frames my study by conducting a discussion of three principal dimensions of my focus on issues around training. The first of these is conceptual, exploring a number of broad meanings of 'training' and contrasting these, where appropriate, with the related notion of 'education' and 'skill'. These key terms are used freely and relatively uncritically all the time, and so it is worth probing their various connotations and interpretations right at the start.

Although definitions and meanings are important, the thesis is not primarily conceptual in focus. I am chiefly concerned to develop a project on the reality and prospects of vocationally oriented training for women in New Zealand today. To that end, I move from conceptual framing to historical framing: what has been the history of
vocational education/training for women in this country, and how important today is that historical legacy? My third background consideration is the recent socio-economic position of women in the labour market. As explained in the Introduction, one of my driving concerns is to try to understand what bearing recent training strategies might have on the labour market prospects for women, and to think through whether there are any positive political investments for feminists in the whole training discourse. That discussion cannot take off without a reasonable summary of the specialist findings to date on the realities of women's work, and on ideologies surrounding 'a woman's place', ideologies which continue to vitally affect women's roles, skills, status and remuneration.

2. Definitions/concepts

Popularly, training is used in a multitude of ways and in different contexts. We talk in a familiar way, for example, about sports training, training for the priesthood, training to be a doctor, memory training, military training, training to read music, character training, and so on. Dictionary definitions are an obvious place to start and the Bloomsbury Dictionary of Word Origins traces the use of the verb 'train' to mean 'instruct' or 'school' back to the 16th century and refers to its evolvement from an earlier meaning of 'direct the course of growth of a plant', which in turn went back to its original notion 'pulling' from the old French 'train' - something dragged along (Ayto 1990:537-538). In the dictionary Composition of Scientific Words, under 'train' the author refers the reader to 'teach/education' which relates to the Latin educo-atus meaning 'bringing up a child, rear, train' and to alipta (m) meaning trainer and teacher in gymnastic schools (Brown 1954:783). The New Shorter Oxford English Dictionary gives as an example a quotation from Proverbs (Authorised Version 22:6), '(t)raine vp a childe in the way he should goe' (1993:3362). Further definitions of train, as a transitive verb, include, '(b)ring (person, animal. etc.) to desired state or standard by instruction and practice'; and training (n.) is
given as a 'process of training for sport, contest, or occupation' (Oxford English Dictionary 1989:968). Training, then, is related closely to educating in signalling a developmental/skilling process but it also means a kind of routinised practice aimed at a particular - often vocational - end.

Those initial etymological distinctions themselves hold plenty of scope for dispute and the picture quickly gets more complicated when we move into the realm of debate amongst educationalists. In A Dictionary of Education the author states that 'there is no clear line between education and training' but they might be differentiated, education dealing with the 'acquisition of knowledge' (original italics) and training with 'the application of knowledge' (Hills 1982:273). Training here is summarised as a process which uses a variety of techniques to 'modify attitude, knowledge or skill behaviour', tending to be 'results-oriented' (ibid).

And, similarly, in a dictionary dealing with educational concepts, the author maintains that the 'key characteristic of the trained individual is that he has the ability to carry out some operation, but lacks the theoretical understanding that lies behind it' (Barrow & Milburn 1990:316). Less optimistically Gleeson maintains that the view that education and training are 'necessarily guided by distinct ideologies' is mistaken, instead asserting that they 'constitute separate aspects of the same mechanism of control' by which education itself functions by 'translating industrial imperatives into professional rhetoric' (Gleeson 1980:148).

Nothing in 'training' itself, it could be argued, refers automatically to work/occupation/profession, though it is with this association that I am most concerned. Vocational education is, perhaps, a more precise concept than training per se, and understandably forms the interface between education and training - the New Shorter Oxford English Dictionary defines vocation as '(o)f pertaining to a vocation or occupation, specifically (of education or training) directed at a particular occupations or skills (1993:3595). Yet the issue of the distinction between general and vocational education and how this
relates to the education/training question is itself a complex one. In an American context Roberts (1965) reviews the literature of vocational education and finds that though the term 'vocational education' is 'relatively new in the literature of education', it is 'just a new name for an ancient practice' (1965:3-5), albeit with important variations in meaning, such that the term is used in the following ways:

- as any type of education/training in which workers participate;
- as education for manual work, with origins in 19th century schools for underprivileged children, but now used as programmes for mentally/socially handicapped children;
- industrial arts courses, originating from the manual trades movement;
- as education for production.

The author comments that 'purpose' has been commonly used to distinguish vocational education from general education, so that any one course could be vocational to one person and non-vocational to another (Roberts 1965:10). Another American contribution states that vocational education is commonly used to denote education for any occupation requiring less than a degree for beginning work, yet the author also allows, in this book on the 'foundations' of vocational education, that the distinction between vocational education and education for the professions is 'arbitrary', and, rather than reflecting any particularly distinct characteristics is, in fact, the result of the professions control of their education (Evans 1971:preface). This notion of contestation has wide and international support, exemplified by Dale who argues that vocational education is a 'very slippery and ambiguous concept...permitting if not encouraging a wide range of interpretations', and often used in opposition to a deliberately discredited general education system (Dale 1986:33).
Even within the vocational dimension, an issue opens up about whether vocational education is anything different from vocational training. A discussion in the *World Yearbook* on vocational education concluded that no universally valid boundaries could be established between vocational education and vocational training (Twining et. al. 1987:11). Evans, however, sees vocational education being concerned with developing occupation-committed workers, whereas 'in-plant training' is about the development of enterprise-committed workers (ibid:60). In these sorts of discussions 'education' and 'training' could almost be used interchangeably, with each being qualified by terms denoting 'general', 'vocational', 'occupational', 'higher', 'further' and 'advanced', encompassing distinctions based on such as 'purpose', 'institutional base' and 'level'. Another way of holding on to such a distinction is given by Marshall, who prefigures some of the debate around 'seamlessness' that I will be dealing with later in the thesis by suggesting that if it is thought not to matter in which institution you study, then no difference between education and training is presupposed. And, indeed, as it shortly becomes clear this is a position supported by those shaping New Zealand's education and training policy. Yet this line should be countered by the fact that important 'philosophical claims can be made about education which marks it off as something distinct from training' (Marshall 1981:89), and this might apply even within the 'narrow' realm of vocationalism.

One obvious possible benchmark is the idea that 'training' involves a 'functional' or purposive rationale for learning, whereas education is 'intrinsic', needing no further justification or social pay-off. Following this line, the fact that each of those processes share certain common features involving learning and practice should not obscure the crucial *difference* between the two concepts - education is essentially about the development of intellectual/critical/moral beings, concerned with academic knowledge and associated with more advanced courses of study; whereas training is the development of specific skills and competencies. Training is thus always training for something else; education by contrast is
supposedly intrinsic - a good thing in itself, requiring no further practical justification and involving the study of subjects which are not judged according to external criteria of relevance or usefulness (Cotterell and Heley 1980). So, as rationalisations in terms of some 'extrinsic mystical purpose such as the good of all' (Marshall 1981) come to look rather idealistic, and as attacks on traditional notions of education gain momentum (Holt 1987:25), the increasingly asked question of 'education for what?' becomes highly charged.

Some of the more recent 'official' literature in New Zealand seeks to abandon distinctions between education and training, especially when 'credentials' or certificated skill levels are the common outcome (Hawke 1988, Smith 1994). Christopher Ball, a British academic invited by Lockwood Smith to address an international conference held in New Zealand, refers to the distinctive characteristics of education and training, the former 'currently understood' as 'theoretical, academic, liberal, norm-referenced, general/broad, college-based and funded from public sources' and the latter understood to be 'practical, work-related/vocational, instrumental, criterion-referenced, specific/narrow, work-based, and funded from private sources' (C. Ball 1992:16). Ball maintains that these commonly-held distinctions are 'imprecise and loaded', and prefers to advocate 'learning' as a more useful term (ibid). From a leftist standpoint arriving (ironically) at a not too dissimilar conclusion, it has long been pointed out that 'intrinsic' characterisations for learning have served as an ideological screen for elitist cultural privileges, and that actually, education has always had a 'functional' role in the wider socio-economic system (Jenks 1977, Apple 1989, Dale 1989). You could also reasonably argue that the acquisition of skills, skill enhancement, personal development etc. - the stuff of 'training' - is as much an 'intrinsic' good as gaining degrees or writing academic papers and so forth.

\[^1\]Indeed, it could be argued, the very purpose of the National Qualifications Framework is to facilitate the merging of education and training. The earlier Hawke Report explicitly encouraged such developments with its second recommendation that 'distinctions between education and training should be avoided' (Hawke 1988:8).
And, indeed, it could be argued that a focus on outcomes values learning wherever and whenever it happens and this is likely to benefit those adults who have traditionally pursued their education and training in informal and less structured situations.

From left and right, then, there are quite strong reasons for blurring the education/training distinction, though the matter is still hotly contested and is likely to continue so given such decisions as the one to retain the Bursary system in New Zealand alongside the new qualifications framework.

The National Certificate will offer an alternative route to employment and further study, and will enjoy equal status with Bursaries. The Government does not intend that there will be first and second class qualifications based on discredited distinction between academic and vocational. Both are equal in their worth. (NZQA1991:32)

Even accepting the above sentiments as a genuine attempt to change attitudes, it is likely that this current manifestation of the division between first and second class knowledge will continue to counteract moves to overcome the legacy of traditional hierarchies.

At the same time there is a danger that the current training focus on skills and competencies, as exemplified by the qualification framework approaches in both New Zealand and Britain, signals the re-emergence of *behavioural* approaches to learning (Delta 1996, Morgan 1993, Gleeson 1990:185b). These approaches emphasise distinction, hierarchy and fragmentation, implicitly or explicitly down-playing the importance of the underlying knowledge base necessary for many jobs. Alongside this, and yet contradictorily, modular principles allegedly reflecting new 'post-Fordist' production concepts in industry highlight the centrality of broad-based skills as against task specialisation and fragmentation (OECD1989:60). It is

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2 This is also the case at school level with the introduction in 1993 of the New Zealand Curriculum Framework which seeks to compartmentalise education into essential learning areas and essential generic skills.
in this context that questions about curricula becomes most pertinent. Penetito and Mikaere, for example, outline the change from what they call an 'essentialist' educational approach whereby progress through school is marked by learning more and more about less and less to an approach which is more pragmatic and encyclopaedic, based on modules/units of learning, skill development and is information intensive (Penetito & Mikaere 1992:434). David Hood as Chief Executive of the New Zealand Qualifications Authority makes no bones about this pointing out that 'the concept of skills is by itself indicative of a shift in emphasis from inputs to outputs' (NZQA 1992: Foreword). The emphasis on skills development leads into my next, and for this section final, area of conceptual consideration. Barrow and Milburn claim that "'skill' is an overworked word...applied indiscriminately to mechanical skills..., intellectual skills...emotional skills, perceptual skills and creative skills' and to activites that develop naturally and to those that need to be learnt' (Barrow & Milburn 1990:281-2). They argue that there is a problem in thus using the word while it retains its connotation derived from its basic use as a term for simple, mechanical skill developed by continual practice. And certainly its use to denote such different abilities make it fairly meaningless, akin, as the authors point out to using the word 'animal' for both shark and spider (ibid). These definitional difficulties with the word 'skill' contribute to the contested nature of the concept and this will be further developed in Chapter Three.

So, the boundaries between key terms are complex and blurred and whilst a sharpening of them may be useful and valid for some purposes, this may not be so in other respects. It is also worth noting that even if at a conceptual level the issues are rather fuzzy, in terms of material funding, definitions and understandings can have major impact. Reporting on developments in Britain, for example, an experienced trainer and researcher stated that while the distinction between education and training is 'unclear' and indeed may be seen by participants as 'unimportant' (and further complicated by the division between vocational and non-vocational)
it is 'critical' as far as funding agencies are concerned (Coats 1994). Recent legislative changes resulting from the 1992 Further and Higher Education (FHE) Act mean that some courses will no longer be regarded as training or vocational and will therefore lose their funding, with serious implications for provision and fees. One result of this is that certain programmes, such as Women's Studies, New Opportunities for Women, Wider Opportunities for Women, not considered strictly vocational, will no longer attract government funding, and will, therefore, cease to be accessible to many women. And even if the courses continue they will need to become self-funding, putting the costs beyond the range of most women (Coats 1994:125). Yet, these (rather than the more narrowly defined skills training courses) are the very programmes which have been 'successful' in extending women's career aspirations with the real possibility of changing/challenging traditional patterns of women's employment.

Arguments about the appropriate functions of education and training have long generated organisational jealousies too, with different government departments and non-governmental institutions jockeying for control of policies and resources. While education has been traditionally seen as the legitimate preserve of the state, training is a different and more ambiguous matter, sometimes considered to be a Department of Trade and Industry enterprise or at other times more appropriately as a Department of Education concern,3 or yet again as primarily the responsibility of industry/employers. The New Zealand Employers Federation (NZEF) certainly characterises the education versus training debate to be one about relative responsibilities and control. While acknowledging

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3 More recently within New Zealand responsibility for policy advice for labour market and industry based training has shifted from the Department of Labour to the Ministry of Education with the establishment of the Education and Training Support Agency (ETSA) formally legalised in the Education Amendment Act 1990. ETSA is an independent organisation working under charter to the MoE and contracted to develop and administer training which supports individuals preparing to enter/re-enter the workforce or who are participating in work-based training. ETSA has responsibility for the implementation of 3 major training schemes: ACCESS, Apprenticeships and the Primary Cadet Scheme. The agency also works with the Ministry to develop labour market training policy.
the state's primary responsibility for professional training (institutionalised at universities, teacher colleges etc), and partly for trade training (as funder of generic vocational training off the job) they argue that other vocational training decisions are the employer's prerogative. The Employers Federation maintains that training decisions are business decisions not ideological ones and in order to make those decisions employers must be free to choose the training and the training delivery mechanism. In their view the state's role should be one of 'encouraging and facilitating effective training and providing training for disadvantaged groups' (NZEF 1984:2). And, similarly the role of the technical institute is also contentious. According to the Employers Federation this should be as provider of training based on training needs identified by industry rather than on examination prescriptions, claiming that the 'analysis of training needs is an industry responsibility at the front end rather than the responsibility of educators at the back end' (ibid:5).

Perhaps the main thing to see is that these distinctions/hierarchies of what counts as education, as training, as academic, as vocational, as skill, as knowledge are not 'natural' or 'given' but socially constructed outcomes, the product of competing and changing ideas within particular historical and socio-cultural contexts. Thus, for example, the assumption that it is easy and desirable to separate concrete thinking from abstract thinking, the theoretical realm from the practical, is arguably part of a specifically Western scientific rationality (binaries) which has gained the currency of 'universality'. More recently, however, educationalists working in the sociology of education field have argued against the continual positing of universal dichotomies, instead promoting a dialogical approach in which theory and practice are integrated (see Keddie 1977, Young 1977).

Generally, my own preference is to avoid any hard and fast definition of training. In some ways it can be seen as purely instrumental for work purposes, in other ways it seems no different essentially from 'education', especially when the supposed 'purity' of education can be
challenged from a sociological and historical point of view. Both the blurrings and the need for distinctions come out more clearly if we consider some of the uses/connotations of training a little further, asking ourselves, What is training meant to be for, exactly, why does anyone/employers/society want it, who gets it and who does not?

Taken at its most obvious and general level, occupational training is perceived to be about the acquisition of skills which give access to and placement in the labour market. Criteria selected by the different occupational groupings determine which skills are relevant, training in this context being used as a screening device regulating the supply and control of labour.  

Further training in either new skills or higher skilled areas and for the purpose of obtaining recognised qualifications is often a prerequisite for job mobility and career enhancement which can, but not necessarily, lead to social mobility. For those who wish to return to the workforce, after having been unemployed, made redundant, or at home raising a family, the concept of retraining is often more appropriate. Training also functions as a substitute for employment, particularly for the young unemployed who have never worked and who are seen as needing training in order to become socialised in employability and appropriate work traditions, thought necessary for establishing good work habits and attitudes (Wickham 1985).

Training is also used as a means of addressing issues of social inequality and equity with, for example, the establishment of specific programmes for women, ethnic groups and the disabled. Along similar lines, literacy and numeracy skills training courses have been provided as compensatory education for adults as a prerequisite to employment. Training initiatives have also been used in attempts to achieve social control of those considered to be disaffected and 'at risk'. The implementation of compulsory evening class attendance for youth in the early part of this century, and the 'industrial transference' of working class girls from areas of high

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4It is claimed, for example, that apprenticeships are not, as is generally assumed, about learning the skills of a trade but about guaranteeing the availability of a particular category of worker (Gleeson & Mardle 1980:122).
unemployment to work as servants in middle class homes during the inter-war years serve as noteworthy examples (Walker & Barton 1986). Finally, training has been used as an instrument of human resource management in times of specific occupational labour shortages or labour surpluses such as during and immediately after the 2nd World War (Briar 1997).

The functions of training as outlined above indicate how wide ranging and diverse are the agendas for training. These various perspectives, both explicit and implicit, reflect ideological and political imperatives in which occupational destinations are about much more than individual choice. For example, a liberal humanist position would advance aims for education and training that were about preparation for adult life, including work, social reproduction, the development of the individual and the provision of equal opportunities. Such objectives are reflected in a number of educational policies during this century such as the Thomas Report (1944) and the Currie Report (1962). ⁵

A neo-liberal position, on the other hand, would emphasise the vocationalisation of training whereby learning is harnessed to economic performance and expressed as individuality, competitiveness, economic efficiency, economic investment, international competition and consumer empowerment. ⁶

These 'paradigm' meanings, in their pure forms, certainly help shape and fuel debates around the significance and point of training, but it is important too to recognise that there are contradictions, overlaps and tensions across them. From my standpoint, it is especially important to explore how the various general models/orientations to

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⁵The Thomas Report (1944) and the Currie Commission Report (1962) are two examples of educational policies promoting primarily a broad, liberal education, based on a classical literary tradition. For example, the Thomas Report noted, In practice both personal and social needs have all too often been pushed into the background, especially by economic pressures...the educative process has been restricted and distorted as the result of economic pressures to the ultimate disadvantage not only of the individual, but of society also' (1944:5).

⁶The Hawke Report (1988) set the agenda for a stronger labour market focus for education with its emphasis on a more direct relationship between the needs of industry and the labour market and education.
training have influenced the training options that are open to women, and to interrogate in very particular ways what they offer, both separately and together. For instance, training is often centrally linked to the 'transition' from school to work, but little attention is paid by any of the main paradigms to the question of what 'transition' means for young women and how this might be different from problems facing young men. Wallace (1987), for example, argues that the transition from school to work is not universal but influenced by gender, class and race.

3. History

Good training is the factor which comes next to good health in increasing the value of women in industry. The removal of all educational disabilities of women and the provision of equal facilities for technical training and apprenticeships is urged. (New Zealand Government 1916, cited in Byrne 1978:22)

Arguments about distinctions between education and training are further complicated by a history of differentiated educational provision, although a review of the literature on the history of post-compulsory education and training for girls and women in New Zealand reveals this to be a recent, somewhat sparse and incomplete field. The following brief historical overview of girls' participation in secondary schooling and beyond is intended to show that (even from a dearth of material) the structure of provision of post-compulsory educational opportunities for women in New Zealand is based on a legacy of biological essentialism as exemplified by the ideology of domesticity, a legacy which continues to exert a strong influence today. My main purpose then, is not so much to extend our

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8 The major assumption associated with the ideology of domesticity, which has its roots in the development of capitalist, industrial society, is the notion of separate spheres based on biological differences which determine the division of labour in the home and workplace; these divisions are, therefore, seen as natural.
information about the institutional and administrative arrangements which determined girls participation in education and training, but to consider their patterns of attendance and study in order to highlight some of the social, political and educational influences which generated and maintained that legacy.

The reality of and options for continued education and training after the end of compulsory schooling, at whatever age that might be, and in all countries, have long varied according to class, gender, ethnicity, intellectual proficiency, economic status and personal preference. At the beginning of the 20th century state run primary level education was the extent of schooling for many in New Zealand (Fry 1985). The limited amount of secondary education that was available during the 19th Century took place in recently established, publicly-funded day, high or grammar schools, as well as in a small number of privately owned church and boarding schools, all of which charged fees. While compulsory primary schooling for girls was for the most part seen as acceptable, though expendable if circumstances dictated, their secondary education was not so uncontentious. Female participation in post-primary education was insignificant as evidenced by the fact that, even though secondary schools were open to both sexes, girls were less than half of the 10% of pupils moving into secondary education by 1900 (Fry 1985:29, source AJHR 1912 E-12).

University regulations in New Zealand have never explicitly excluded women from studying their courses (because it was never envisaged that women would want to), but the right to a full university education for girls (who were mostly middle class) only became possible in the latter part of the 1870s after an extended struggle. A number of landmark victories enabled female students to attend

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9 The first state secondary school for girls opened in 1871 in Otago (Fry 1985:26).
10 See Maria Atkinson's (1870) account of life in colonial New Zealand for an idea of the different reactions to the idea of girls receiving an extended education, Maria was a keen supporter and was instrumental in the establishment of secondary school education for girls.
11 Girls attendance at the public primary schools, as a percentage of boys, was as follows: 1877 - 38%, 1900 - 48%, 1909 - 45% 1930 - 50% (Fry 1985:9, 103).
mainstream lectures as a right (rather than the extra-mural classes intended for them), to take the same examinations as young men, to complete the necessary practical work and to gain degrees.\textsuperscript{12} Even so, opposition to female university students, within and without the institution continued for many years, their various struggles described by Sutch 1974 and Fry 1985 in New Zealand and in Britain by Byrant 1979, Burstyn 1980 and Purvis 1991. Even then, the purpose of university education was more to do with strengthening the wife/mother role rather than to turn out professionally trained workers. However, by attending university women at least got a toehold into professional areas of work, however severely restricted. And many of those early female graduates became teachers in the recently established and expanding high schools, one of the few professional jobs available and considered suitable for middle class girls at that time in New Zealand.\textsuperscript{13}

Fry maintains that 'patterns that were established in the secondary school curriculum during the first quarter of this century were likely to have a major influence on future trends. They serve as a pointer towards the direction of women's participation in social, economic and cultural life' (Fry 1985:34). While the curriculum in the state secondary schools was similar for both boys and girls and based on an academic model, there were some crucial differences which were influenced by ideas about what was considered suitable and appropriate for each and justified in terms of the different futures expected of men and women. Of the mainly middle class students attending secondary schools boys were prepared, in the main, for university, military, civil service, or business careers and, with few exceptions, girls were trained in the 'polite accomplishments' in order to serve as educated wives and mothers. Based on that, mathematics study for girls was confined to arithmetic, whereas for boys it also included algebra and geometry - prerequisites for university entry. And science subjects were

\textsuperscript{12}The first degree to be awarded to a women in New Zealand was to Kate Edger in 1877
\textsuperscript{13}By1900 the government employed 2,000 women as teachers, though only a minority would have been university trained (Day 1992:70).
likewise divided, girls directed into the 'soft' options of the more cheaply resourced biology and botany areas rather than into the presumed 'harder' areas of physics or chemistry, the study of which was again an entrance requirement for university courses such as medicine. Latin and Greek were an important part of the classical curriculum and essential for professional areas of study such as law and theology, but girls were not allowed to follow Greek studies because the content matter was considered morally unsuitable.\(^\text{14}\) In addition, needlework was a compulsory subject for all girls at any public school, but, not surprisingly, this did not extend to boys (Order of Council gazetted 1/1/1899).

Explanations for the different educational treatment of females are informed by myriad factors, from wide and diverse perspectives - moral, feminist, evangelical, political, economic, intellectual (Burstyn 1980). Fundamental to all, however, was the notion that women's unique reproductive capacity conditioned and influenced her emotional, intellectual, physical and social make-up, rendering her weak, docile, emotional and irrational. Marriage and children were thus assumed to be woman's 'natural realm', and by extension housework and carework, though the organisation of this depended on the class position and circumstances of the women involved.

Alongside this man's role was to be provider and protector requiring his participation in the public sphere. However the boundary between the female 'private' world of the home and the 'public' world of men was rather more flexible than this.\(^\text{15}\) Some women actively choose to work, preferring some independence to a life of enforced idleness but their choices were mostly limited to areas that were considered socially appropriate, such as in the 'caring' professions of teaching and nursing. Nonetheless these occupations were important in securing financial independence for women. Other, mostly working

\(^{14}\) The following authors, in particular, give fascinating historical accounts of the range of opinions about the purpose and content of education for New Zealand women and chart their educational progress (Sutch 1974, Fry 1985: Ch. 6, Tennant 1986: Ch. 6).

\(^{15}\) Working class women of the early 20th century experienced a much less severe separation between the two because they were more likely to be engaged in paid labour before marriage and later as circumstances dictated (Lewis 1986:3).
class, women had no choice but to work, their circumstances as single women in a period of a surfeit of women, as married women with children and unemployed or absentee husbands, not allowing them the luxury of 'idleness'.

In the context of New Zealand's status as a developing colony, the establishment of differential education and training can also be seen as a necessary part of contributing to the project of 'breaking in' the colony (Saville-Smith 1989). The female role in this context was as moral guardian of the nation, to provide a stabilising influence and to reproduce labour. As such technical training for women was not about training for employment but rather about training for domesticity either unpaid or as paid servants.

This era also saw policy statements connecting race and national efficiency to the teaching of domestic arts. Debate about the nature and necessity of post compulsory education provision for girls during this time need also to be understood as part of a wider concern about the security of national identities and the protection of evolutionary superiority (O'Neill 1992:83ff, Bryant 1979). Darwinist evolutionary theory exerted a strong influence at the turn of the century and along with the eugenics movement, which counted a number of influential people amongst its members, focussed on what they characterised as the degeneration of the Anglo-Saxon stock. They specifically saw the mental and physical health of mothers as crucial to producing a fitter race, and indeed thought

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16 The history of that subject alone is fascinating and significant in terms of revealing prevailing societal attitudes about the role and destiny of females as the following quotation reveals, 'by restricting instruction in home life and childrearing to girls, the champions of such an education merely reinforced the low social and economic value placed on these roles and gave strength to the belief that household labour was an exclusively female occupation associated with economic dependence and limited mental ability' (Tennant 1986:9).

17 Other, more traditional, accounts of the imperial development of educational provision in New Zealand take a different approach and emphasise such themes as the idea that education should be provided by state institutions, that it should be secular, democratic and that there should be equal opportunity for all (see for example Bailey 1989). These type of accounts have been challenged for being celebratory, uncritical and atheoretical, thereby ignoring other dimensions, such as the impact of education on women, Maori, working class in settling the colony (see Openshaw & McKenzie 1987, James & Saville-Smith 1989, McKenzie et. al. (1990), McCulloch 1992).
that female evolution was arrested earlier in order to conserve energies for reproduction. In light of the declining birth and marriage rates amongst women of the 'right' class - middle class - selective breeding was strongly advocated. Truby King is perhaps one of the best known and influential of the New Zealand medical profession who warned against the dangers of 'cram', claiming that intellectual competition endangered young women's health. King advocated increasing the amount of home sciences teaching for girls, training for motherhood seen as a means of improving the health of future children and mothers. These attitudes were particularly prominent during periods of national crisis such as wartime with, for example, the physical inferiority of soldiers blamed onto women's lack of knowledge about nutrition and the low birth rate and high infant mortality rates seen as endangering the supply of soldiers (Fry 1985, Dillon 1986).

However, and somewhat contradictorily, education more generally, rather than being seen as a way of increasing knowledge about, for example, nutrition and parenting, was instead held responsible for the 'unfitness' of mothers. It was thought that study was too demanding, used up finite energy needed for reproduction, gave women ideas about independence, made them dissatisfied with their domestic responsibilities and took time away from their moral duties (Burstyn 1980:41-44). It was feared that not only would family life suffer but the whole fabric of society would be threatened.

The cult of domesticity, encouraging 'separate spheres' was, thus, overwhelmingly supported by the medical profession, the state, the church and women's organisation, in ways that asserted themselves across class, sex and race boundaries, though for different reasons and with different agendas (James & Saville-Smith 1989:31). These attitudes, combined with an inferior primary education and continuing debates about the 'value' of certain subjects continued to influence the secondary school curriculum in a number of fundamental ways. The most obvious was an increased emphasis on
physical education and the inclusion of compulsory domestic science for girls, promoted as a science subject for them instead of the physics and chemistry studied by boys. Efforts were made to enhance the profile of domestic training by emphasising a professional and scientific approach and the establishment of the first Chair of Domestic Science in 1911 was an expression of the attempt to elevate this subject (Middleton 1988).

But, as already mentioned, secondary education of the type discussed was limited to a comparatively small number of girls, who were mostly middle class and/or wealthy. More generally, it was felt that the secondary school curriculum was overly academic, driven by exams to prepare students for university and professional employment and, thus, unsuitable for the less able and those destined to work the land. For most young women, leaving primary school to join the workforce meant becoming employed as domestic workers or as dressmakers or seamstresses, though work in industry became more widely available during the 1880's and women found work in the mills and factories, printworks and bookbinders, with training for such work gained on the job (Sutch 1974:71).

Debates about girls' education, however, were not just a New Zealand concern, since similar arguments about the purpose of educating girls were taking place in Britain, the USA and Australia, though those differing contexts influenced resulting policy and practice. Burstyn, for example, maintains that social control was the predominant theme of Victorian education for women of all classes and that this was 'expressed through the ideal of womanhood' (Burstyn 1980:11). And as an extension of this, '(i)t is quite clear that the various ideologies underlying curriculum differentiation and the concerted attempts to define the construction of femininity were just as much attempts to defend the hegemony of upper middle class values' (O'Neill 1992:88). Alongside educational and labour market developments, political change was potentially reshaping women's role, though, in seeking the extension of suffrage to women, it is claimed that early feminists were looking for acknowledgment
of woman's special vocation as homemaker, rather than to extend her role into the public arena (Dalziel 1986:64). The purpose of educating girls was, then, seen variously, as a means to use an educated female morality to civilise male society, to gain women's emancipation, to influence the wider reform of society and to gain financial independence for women. These diverse objectives give some indication of the range of the debate, but whether from an emancipatory or moral position the special status of woman as wife and mother was never seriously questioned.

Two events in New Zealand in particular aided the expansion of educational opportunities, the first being the introduction of free secondary school places in 1903 (gained on passing a proficiency exam) and the second the establishment of the technical day school at the beginning of the 20th century.\(^\text{18}\) The development of technical education in general has been associated with the 'rise of complex industrial societies and national systems of education' (McCulloch 1989:14). In New Zealand the growth of technical education was intended to be an alternative to the academic curriculum of the secondary schools and to respond more closely the technical and agricultural needs of the colonial environment. Previously, technical training for employment in these areas had taken place, for the most part, in art schools and evening classes of day/ high schools which were well established by the early 20th century and attended by students mainly between 14-17 of both sexes, who paid fees for vocationally oriented classes (Day 1992: 69). Apprenticeships, based in workshops, provided an important alternative source of training for entry into a number of industrial and technical occupations, but there was no interaction between these and institutional technical provision. Indeed, unions were 'wary' of the technical schools, concerned that they might be used by employers to destroy the apprenticeship system (McKenzie, Lee & Lee 1990:20). It has been argued that the creation of vocational education was an attempt to

\(^{18}\)The New Zealand Government introduced the Manual and Technical Instruction Bill in 1900 and in 1905 the first technical day school opened in Wellington followed by a further eight technical schools operating in both the North and South Island over the next seven years.
make schooling more masculine, in a way that would make it of more interest and use to 'hand-minded boys who were not performing as well as girls in the other educational institutions (Tyack in Powers 1992: ix). Technical schools were intended to provide training in subjects with a vocational orientation and as such differentiation in the curriculum for boys and girls was enshrined as a natural and obvious outcome linked to the sexual division of labour (Fry 1985: 58). Attendance at the newly established technical colleges was almost equally divided between girls and boys, though the choice of subjects studied was gendered, with girls predominating in commercial and domestic subjects and boys in the trade and craft subjects. Christchurch Technical College, for example, offered all pupils English, social studies, arithmetic and book-keeping, but girls could not take maths, instead studying elementary science and hygiene. While only boys studied woodwork and metalwork, only girls took cooking and needlework, the latter subjects seen as eminantly suitable for their future domestic role, if not for paid employment (Fry 1985:61). In 1921, for example, the course breakdown in the technical schools was as follows (AJHR 1922 E1 p.42);

<table>
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<tr>
<th>COURSE</th>
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<th>BOYS</th>
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<tr>
<td>Industrial</td>
<td></td>
<td>951</td>
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<tr>
<td>Commercial &amp; General</td>
<td>1158</td>
<td>588</td>
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<tr>
<td>Domestic</td>
<td>385</td>
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</tr>
<tr>
<td>Agriculture</td>
<td>20</td>
<td>243</td>
</tr>
<tr>
<td>Art</td>
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This curriculum differentiation remained a significant feature of the technical day schools, such that by 1940 three-quarters of boys took building or engineering subjects and fifty percent of girls took a commercial course with a further quarter taking a 'home-life' course (Sutch 1974:83). The ideology of domesticity which dominated education for middle-class girls was as invasive in the technical schools sector, though in different ways. The agenda for domestic science was not monolithic, it had different formulae for different female pupils and, as such, was the vehicle to train girls as
domestic servants, to impose middle class values and a bourgeois morality on the working class, to teach domestic skills and accomplishments and to introduce technologically-based domestic management (Blackmore 1992:76ff).

A further problem concerned the status of technical education associated as it was with practical skills which could be learnt on the job rather than with intellectual or theoretical knowledge associated with academic learning. As a result, social and ideological links emerged between the different provisions so technical education rather than being a rational and pragmatic alternative to academic education became instead seen as something inferior, as second class knowledge, and, therefore, less desirable (McKenzie 1990:31ff). The pertinent debates of this time, however, centred not only around the need to achieve a balance between a good general education and vocational training, and around the relative worth of an academic or vocational education but also focussed on questions about the 'nature' and future development of the colony and how to meet these.

The expansion of the service sector during the 1920s generated new employment opportunities which required employees to be trained in commercial subjects. The courses provided by technical schools were popular because they were thought of as a pathway into respectable employment and chosen in preference to domestic science courses. Initially both boys and girls took commercial subjects, but by 1915 twice as many girls as boys participated in them, a consequence of the increasing feminisation of certain areas of the labour market (Day 1992:72). The flow of girls into the commercial sector was such that there was considerable concern that working class females would get ideas above their station, that the supply of servants would dry up and that family life would be destabilised. Discussions about the appropriate content and form of vocational education for young women across class were informed by developing opportunities for working class women, by industrialism and changing political roles for middle class women and by the
contradictions between nineteenth century social roles and the challenges of twentieth century life for mainly upper class women (Powers 1992:9). What is clear, however, is the continued expectation of gender differentiated roles and responsibilities, whether at home or in the workplace (Dillon 1986).

Debate about the purpose, advantage and disadvantage of differentiated schooling and along with it, concerns about the appropriateness of the academic/practical curriculum continued to feature during the 1920s and 1930s (Dillon 1986). This was in the context of rising unemployment and economic slump which saw school retention rates increasing for both sexes. On winning the election in 1936, the first Labour Government, in trying to realise its egalitarian ideals was faced with the task of deciding how best to achieve its objective of free post-primary provision for all. One of their first reforms was the abolition of Proficiency examinations which meant that post-primary education provision was now free to all, up to nineteen years of age. In 1939 the then Education Minister, Peter Fraser, made his now famous statement in which he established the principle of equal educational opportunity as a prime policy objective for the government. In 1944 the Thomas Report on post-primary education recommended a wider range of options for the school certification examination and a comprehensive, common core curriculum for the earlier years of secondary schooling, marking a major shift in curriculum practice.

However, the ideology of egalitarianism, in which individual talent was recognised and rewarded with a differentiated educational

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19 In a study of 35,000 female factory workers in New Zealand in 1947 the author rhetorically asks 'Who is the Factory Girl?' It appears that she is 'likely to have a physical strength inferior to that of men' and that many of her 'actions, interests and needs are governed by ... actual or potential motherhood, and that ... her interests are likely to centre almost exclusively on personal relationships, her work being regarded as a brief and relatively unimportant interlude between life at her parents home and her own home, and her 'social habits... motivated by submission rather than dominance, obedience rather than leadership' (Eaton 1947: 6). This general state of affairs was considered by the author to be largely due to their restricted education which in New Zealand at that time, 'in the overwhelming majority of cases, does not go beyond the primary school' (ibid:13).
experience, meant in practice that girls continued to follow gender differentiated options (Day 1992:74). These educational policy developments had taken place during the period of the Second World War when there was a significant increase in female paid employment, particularly after 1941, doing jobs that were previously regarded as unsuitable and unmanageable by women (Dillon 1986). However, this move by women into men's jobs was strictly controlled by dilution agreements between unions and the government, so that women were given shortened training rather than the usual skills training men received and were required to vacate their jobs to returning servicemen. As so aptly put by Powers, 'the myth of true womanhood stood in the wings of the industrial workplace to be paraded out when it was socially or economically expedient, thus marginalizing women's work' (Powers 1992:10). It is claimed that the outcome of this break in the traditional patterns of employment, particularly the trades areas, could have resulted in a major female breakthrough in the trades areas, but, despite the need for skilled labour, women were excluded from the massively expanded skills training available (Dillon 1986:14). Instead, motherhood was once again promoted as a vocation of national importance,²⁰ bolstered by newly-emerging psychological theories of the importance of full-time mothering. The educational settlement resulting from these developments influenced the general direction of education for the next four decades. It was only when the government developed policies on industrial training in response to the growth of trade and industry that reform of technical education became pressing. These changes ultimately resulted in the demise of the technical high schools and the continuation of technical education in the tertiary sector.

However, Fry maintains that until the 1970s the gender differentiated curriculum was 'not a hotly debated issue' because it was 'assumed that boys and girls were being given equal opportunity' (Fry 1985:99). The principle of equal versus equivalence underlies

²⁰And previously promoted by Truby King in the early 20th century as a response to the high birth rates of Asian countries.
the curriculum debate about homecrafts for girls, handicrafts for boys, reinforcing, as it does, that education for males is for work, and for females it is for domestic life. The legacy of women's domestic vocation based on unexamined assumptions about differences between the sexes is inextricably embedded into educational practices and continues to influence gender divisions in paid and unpaid work today. Yet there have been obvious tensions and contradictions throughout the period of female vocational education. The question for vocational training for women at this time concerns the extent to which this training is about female participation in short term jobs in industry or about their long term role as homemakers (Powers 1992: 28).

Education and training policies from around the time of the Atmore Report (1929) have emphasised 'equal' through educational discourses of egalitarianism and equality of opportunity. But, as Middleton argues, for post-war women this set up some quite contradictory expectations, the coexistence of the ideology of equal opportunities with an ideology of domestic femininity meant that they could not easily have careers and families, while men can have both (Middleton 1985:133ff). Thus, for women the ideology of equality means equal but different and as such continues to contribute directly and indirectly to the oppression of women. Within education more generally there has been long-standing discriminatory practices which have been bolstered by less explicit practices to do with the teaching process and the learning environment forming part of a hidden curriculum which embodies and transmits messages about the presumed suitability or not of students' choices. Thus, the gendered curriculum is only one part of the educational experience of females, there are also more insidious influences operating within institutional practices which contribute to the 'historical production and reproduction of the gendered ordering of social relations' (O'Neill 1992:75).

It was not until the late 1960s, a period influenced by the second wave of feminism, that ideas about the assumed natural order of
things - men as wage earners and women as economically dependent wives and mothers - were strongly challenged. In the mid-1960s the government commissioned a report into vocational training in New Zealand and stated that it was a 'revealing comment on our stage of social development that it is still necessary to present in a report of this nature a section dealing with the training of women and girls' (Tyndall 1965:52). Yet, while women's growing and changing participation in the labour force was recognised, 'the range of skills contributed by women has not grown proportionately as revealed by Department of Education statistics on destinies of school-leavers, revealing that of the narrow range of occupations to which girls enter, 'only a small percentage require extensive training' (Moriarty 1965:23). Recognition of women's limited occupational opportunities and training needs did therefore exist but as a later Department publication stated the education system as such was unlikely to be able to challenge deep-seated attitudes about the appropriate roles of men and women and the place of women in the home and workplace, concluding that the achievement of equal opportunities 'may require the taking of educational initiatives into fields which are at present marginal to the formal education system' (NZ Department of Education 1972). What is not included for educational debate, however, is the question of why it is that formal training is required for some jobs but not others.

This, alongside manpower policies which 'continue to favour the development of white male tradesmen, technicians and managers' has meant that the increase in women's participation in the workforce, from 25% to 34% in the full-time workforce between 1961 and 1981 'has simply reinforced the gender segregation' (Probine-Farghar 1987:15). The authors maintain that equal educational opportunity policies have not worked for disadvantaged groups, citing as an example the lack of progress in increasing the

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21 'It is probably necessary to correct the old-fashioned idea that it is a waste of time training a girl, because she will probably leave work to be married just at the time when the full effects of her training would be felt' (Tyndall 1965:53). cf. 'New Zealand can not afford to ignore the potential contribution of half of its population and too many women performing at less than their abilities warrant' (Sutch 1965:24-25).
number of young women in apprenticeships (ibid). In the following year a Government-sponsored review of PCET recommended that this sector be more responsive to women, Maori and Pacific Islanders in particular (Hawke 1988:84). The resulting Government Report (Learning for Life 1989) highlighted as one of a number of issues 'insufficient sensitivity to the needs of ethnic groups, the socially disadvantaged and women', and noted further the 'need for greater equity in terms of access to PCET', to be achieved through the establishment of charter objectives (institutional equity goals) and corporate plans (Lange & Goff 1989:2-5). Two years later, a statement on educational policy from the newly elected National Government highlighted the need for a 'more effective participation of under-represented groups and individuals in education and training', noting that women 'find it hard to obtain apprenticeships' (Smith 1991:14, 30). By 1994 a Ministerial Consultative Group claimed that 'there has also been a large increase in tertiary enrolments by mature students and by groups that were previously under-represented, notably women and Maori' (MCG 1994:9). Following this the Ministry of Education released Education for the 21st Century, the central focus of my second chapter.

The impact of feminism, birth control, technical innovations and government policies have all contributed to the expansion of opportunities for women, among which their increased involvement in the workforce is one important feature. In New Zealand the average number of children in a family has changed from over 6 children in the late 19th century to 2.5 by 1940 (Houston 1970:51). Infant mortality rates of 150 per 1000 live births at beginning of century, dropped to 50 per 1000 in 1939, and are now 14 per 1000 (Lewis 1986:3). However, the expectation that women will still take prime responsibility for domestic work and childcare in the home remains for the most part undisturbed. Women's so called dual roles, that of housewives/mothers and workers continue to contour their lives in specific ways which, while linked to past legacies, have a distinct and contemporary form which is mapped out in the next section. What is clear is that the impact of these historical
developments has been to consistently under-rate the importance of women's education and training, a situation, it is claimed, which continues to persist (Dillon 1986:20).

4. The contemporary social context of training for women

In this section, I bring aspects of the definitions and history of training together and extend the context to embrace the general structural situation of women's working patterns and rewards in contemporary capitalist society.

The assumption that women's commitment to the labour force is less serious than men's has resulted in, amongst other things, restricted training opportunities for them. Recent developments, both demographic and social, have impacted on the patterns of women's lives in quite significant ways yet these do not appear to have changed the prevailing perception of women's roles to any major degree. While attitudes have changed since the beginning of the twentieth century so that women's choice to be in paid work is now generally accepted, the type of work and conditions under which women work still continue to be determined by ideas about socially appropriate/desirable gendered roles for men and women.

Women's participation in paid employment has been steadily increasing throughout the century, affecting all industries, with the service and distribution sectors experiencing the biggest growth in women workers (NZ Official Yearbook 1988, Crompton & Mann 1986:123-9, Dex 1985:177-8). This situation is a significant feature throughout OECD countries to a lesser or greater extent. In New Zealand, in 1951, 25% of the female population 15 years and over were in paid employment, but by 1986 this figure had increased to 45%, an increase of just over 80% (Dept. of Statistics 1993a:97). In terms of full- and part-time work, 39% of all women 15 years and over were working full-time, compared to 79% of men, and 8% of women were working part-time compared to 2% of all men in 1981
(NZ Dept of Labour 1985). The 1991 Census records that 36.2% of the full-time and 75.6% of the part-time paid workforce were women (Dept. of Statistics 1993b:265). The rate of increase in women's participation in part-time work was greater than that for full-time work. Not only are more women employed than ever before, but there has also been a change in the pattern of their working lives resulting in longer periods of time in paid employment. Until the early 1950s women typically worked until they had their first child and then often left the workforce permanently (Coyle 1988:3, Beechey and Whitelegg 1988:83). Since that time a more common pattern is for women to re-enter the labour force after a period away for childbirth and childrearing (Hakim 1979, Dex 1984). In New Zealand there has been a fourfold increase in the number of married women in paid employment between 1945 and 1991 (Dept of Statistics 1993a:97). This significant increase in women's participation in paid work over the last forty years has been the result of a number of economic, social and demographic changes, the nature of which have been fully documented in New Zealand by Horsfield 1988. Many of these developments revolve around changing childbearing/rearing practices, generally, women are delaying starting a family, and when they do they have fewer children over a shorter period of time. That, along with an increase in divorce and solo parenting, and heightened consumer expectations has increased the 'supply' of women wanting paid employment. On the 'demand' side, as indicated above, there has been a substantial expansion of jobs in the service sector doing work traditionally defined as women's work.

A third important feature of paid work is that there are notably different distributions of women and men across occupations. Women, like men, are heavily concentrated in certain jobs and

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22 Briar's (1995) work on the movement of women in and out of the labour force shows how women are mobilised/recruited through government campaigns during periods of labour shortage. In particular she refers to the war period, postwar 1947/9 and the mid 60's (1966/7) in which there was a drive to bring married women back into a number of occupations, for example, teaching, nursing and textiles. These campaigns were all predicated on the assumption that women's involvement would be 'temporary and marginal'. The expansion of part time work was seen as a suitable way of encouraging women to become paid workers in a way which would not interfere with their permanent responsibilities for domestic work and childcare.
industries, such that in New Zealand in 1991 one third of all employed women worked in the clerical sector and just under half of all women in paid work are employed in only six occupational groups, the main ones being manufacturing, service and caring (Codd et.al.1990:87). And within those groups, women make up the majority of workers, with, for example, 76% of women in work that is 70% or more female in the white collar workforce (Horsfield 1988:282). By contrast, men are to be found in many more occupational categories. This clustering of women in a narrow range of occupations has been characterised as the sex segregation of occupations (Reskin and Hartmann 1986), or as 'horizontal segregation' (Hakim 1979, Sinclair 1991). This pattern of occupational and industrial segregation by gender has a long history which has had mainly negative consequences for women. These disadvantages have been fully explored by researchers such as Hakim and Hartmann and apart from those pertinent to this study (career prospects, training opportunities) they will not be covered here. When women do work in the same occupations as men, they are more likely to be found in the lower grades, this is 'vertical segregation' and it too has significantly increased during the last century (Hakim 1979:27).

The proportion of women working part-time compared to men has already been noted. There is a common belief that women prefer to work part-time in order to better accommodate their other responsibilities and that the money earned from this work is only 'pin money' allocated to non-essential extras. However, in a major New Zealand report on part-time work the authors found, to the contrary, that just under half of the women working part-time in their study wanted more hours and one third of the women involved would have preferred full-time work but could not obtain it (Davidson and Bray 1994:91). The main reasons of those who did not want to work more hours centred around the difficulties and stress of meeting all their commitments (ibid:92).

Patterns of part-time work are often determined by available childcare arrangements (Coyle 1988:5), and vary according to the age
of the child(ren), 68% of part-time female workers having children under 16 years of age (Beechey and Whitelegg 1988:93). The 'convenience' of part-time work for women is more than offset by the benefits gained by employers in terms of advantages such as lowered employee overheads, and the avoidance of certain statutory obligations (Coyle 1988:5-6). Most part-time workers fall into the category of low-paid workers this effects 92% of women in manual work and 67% in non-manual occupations (ibid). There is growing evidence that women who return to work on a part-time basis experience downward occupational mobility (SROW 1975, 1984, Beechey and Whitelegg 1988:94). Yet, in terms of monetary reward, wages from part-time work are, in fact, essential to many women who are either solo parents or who have partners who are unemployed or in low income jobs. Economic restructuring for part-time workers has had, according to Davidson and Bray, a serious impact, both in terms of the number of jobs available and in terms of the employment conditions attached to these jobs. While the New Zealand Employment Contracts Act (1991) makes no distinction between minimum working conditions for full- and part-time workers, the authors argue that from their evidence the reality is somewhat different. Part-time workers in their study report a serious erosion of working conditions, leaving them vulnerable to wage cuts, cuts to hours, alteration of hours at short notice and constant fear of being laid off. The pursuit of flexibility by employers in the context of a deregulated economy and changing employment laws has had a particularly serious and, for many, negative impact on part-time workers. In Australia it has led to the intensification, casualisation and feminisation of this type of work (Edwards & Magarey 1995), and it is likely that this is also the case in New Zealand (Sayers 1993).

In terms of earnings women continue to earn less than men. The average hourly rate in 1993 for women was $13.15, for men it was $16.20. This discrepancy is further increased in men's advantage when looking at weekly pay. For women it was $478.01 and for men it was $619.40 (Quarterly Employment Survey 1993). Analyses of
women's inferior earnings suggest a number of possible explanations which will be briefly outlined here. The first is predicated on the fact that women are clustered in a narrow range of occupations. Secondly, the mere fact of working with other women seems to be a strong indicator of lower earnings. A major factor here is whether and to what extent work is conceived to be skilled. Research into the classification of work as skilled, semi-skilled or unskilled has revealed fundamental inconsistencies and the reasons for this will be developed in Chapter Three.

In summary, then, the main features of women's employment patterns are for more women to work for a longer period of their lives, for women to work in a narrow range of occupations, for women to be the majority of part-time workers and for women to be more at risk of losing their jobs than men. The consequences of these employment patterns for women are that in comparison with men, they earn less, are accorded lower status, are rewarded with fewer fringe benefits, have less job security, have a much decreased entitlement to future benefits and pension rights and have less opportunity for promotion and training. These disadvantages are fundamental and have a lasting impact affecting most aspects of women's lives (Reskin and Hartmann 1986:9, SROW 1975, 1984).

Education and training are widely regarded as being a key determinant in achieving economic advancement, yet the historical influences of the legacy of domesticity mean that when women have received training it is more often than not sex-specific education and training which has seriously limited the possibility of their economic advancement. But, even more relevantly for this thesis, the very basis of the relationship between education and economic success for women is open to question and the subject of the next chapter.

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23 In an ILO report it is claimed that one way of tackling the feminisation of poverty is for governments to invest in upgrading women's occupational skills (ILO 1995:14).
1. 'Training' as discourse and ideology

Having developed a three-dimensional framework for understanding issues of gender and training, I want to focus now on the nature of the 'official' discourse in New Zealand today, by analysing in some detail one strategic government policy document - *Education for the 21st Century* (hereafter *E21C*). Related texts such as *Education Policy: Investing in our Future*, *Skills Pathways* and *Skill New Zealand* will also be referred to. In using as a method of analysis one which pays close attention to the construction of the text it is possible to map the different elements which constitute training discourse. Moreover, by indicating how discourses function to legitimise certain practices over others, I will question the supposedly straightforward, neutral, objective nature of the policy formation and will argue that training, as conceived by *E21C*, is ideological,
because of how it ultimately prioritises some social interests over others.

E21C represents the most recent blueprint for a national plan for education and training. My 'reading' of the key documents will use a methodology which is concerned with both the meaning of the language and the 'materiality' of the texts (D. Smith 1990:211-212). The 'meaning of language' should be understood (following Saussure) as both 'an arbitrary system of signs and a domain of socially constituted practices', and this is now routinely characterised as discourse (Codd, Harker & Nash 1990:137-8). There are a number of difficulties associated with defining 'discourse', partly the result of how different disciplines have engaged the concept and also because of different theoretical influences (Burr 1995, Fairclough 1992, Potter & Wetherell 1987). Potter and Wetherell thus draw attention to the various ways in which the concept 'discourse' is used, and distinguish between those in which discourse refers to 'all forms of talk and writing', those in which it applies only to how the 'talk is meshed together', and yet others who use the term to 'refer to much broader, historically developing, linguistic practices' (Potter & Wetherell 1987:6-7). For the purposes of this work a broad definition, in which discourse is concerned with the 'set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events', is the preferred one (Burr 1995:48).

An important point to emphasise here is that discourse should not just be seen to 'reflect or represent social entities and relations' but also as constructing or 'constituting' them (Fairclough 1992:3). This way of attempting to understand actions, meanings and change has been inspired by 'deconstructionist' or post-structuralist theorising, in which texts are sites constructed through and by language, which are often gendered, and which serve as intersections of 'power/knowledge' (Foucault 1980). Given that the same phenomena can be described in various ways, discourse analysis is an approach in which social texts are probed (by such techniques as
questioning which linguistic constructions are chosen and which are excluded) in order to uncover/discover their often unspecified/covert meanings. On the basis of Codd's assertion that there is probably no one 'correct' interpretation of these texts, the task, then, is to 'examine the differing effects that documents have in the production of meaning by readers' and in so doing 'penetrate the ideology of official policy documents and expose the real conflicts of interest within the social world which they claim to represent' (Codd et.al. 1990:135,147). Also writing in the context of educational policy making, Stephen Ball claims that discourse analysis is valuable because it recognises that,

policies are, pre-eminently, statements about practice - the way things could or should be - which rests upon, derive from, statements about the world - about the way things are. They are intended to bring about idealised solutions to diagnosed problems. Policies embody claims to speak with authority, they legitimate and initiate practices in the world, they privilege certain visions and interests. They are power/knowledge configurations par excellence. (Ball 1990:22)

A fundamental problem here is the question of how to reconcile the claim of each discourse to be 'telling it as it is', with a counter claim that some versions (mine!) reflect a 'truer' or more realistic picture. The relativism of discourse theory suggests that it is impossible to favour one version over another, that there is no one 'true' reading; yet this seems to leave us with endless possible understandings of social life and interaction, all equally valid (Burr 1995:48). In the light of this, a number of prominent authors do want to hold on to a critical practice of discourse analysis and so struggle to answer the question: 'how shall we deal with the fact that our accounts of how people's language use is constructed are themselves constructions?' (Potter and Wetherell 1987:182). It seems as though, in spite of a tendency to see all discursive narratives as equally valid, a 'privileged' reading in terms of exposing the ideology of the text in question cannot easily be abandoned (Luke 1995/96:18-21,

This relationship between discourse and ideology is a difficult yet crucial one, not only for a thesis like this, but for any radical account of political change and alternatives to dominant discourses. For example, how can a specifically feminist critique of male-dominated practices and discourses around work and home be upheld if the feminist 'discourse' of work and home is only one amongst others (including masculinist ones)?! It is my view that whilst the traditional concept of ideology can be validly criticised by discourse theorists, something of it must be retained if a meaningful feminist form of social critique is to be possible.

The way in which the concept of ideology (cf. McLellan 1985) is conceived by a range of critical theorists today is that ideologies do not always have only one (false) meaning, but are 'multi-accentual' and can be manipulated into having very different political implications. 'Freedom' is one familiar example, claimed and struggled over by left and right alike, and indeed as I will indicate the continuing power of the related concept of choice is central to the way in which E21C seeks to incorporate the reader. Many other ideological/discursive values can be seen in a similar light as having no automatic good or bad political-ideological connotations. Rather, we should consider ideological contestation as the way in which the various discursive elements (freedom, anti-traditionalism, etc.) become connected with other terms and connotations (capitalism, individualism, responsibility, law and order, etc.), and that these ideological discourses are also part of the project of social and political movements (eg. the New Right). In short, ideology is not a one-way conveyor belt for ruling class propaganda, but a broad site of contestation and 'discursive' struggle. As Hall states:

The term ideology is used to indicate the frameworks of thought which are used in society to explain, figure out, make sense of or to give meaning to the social and political world. Such ideas do not occur, in social thought, one by one, in an isolated form.
They contract links between one another. They define a definite discursive space of meaning which provides us with perspectives on the world, with the particular orientations or frameworks within which we do our thinking. (Hall 1986:ix)

Hall is relevant to this discussion because he is particularly concerned with how New Right hegemony in the United Kingdom was established, and he feels that the 'old' concept of ideology (as false consciousness, distorted reality) cannot really explain this. On the other hand, Jessop et. al. (1988:Chs. 4-6) argued that Hall was in danger of overemphasising the force of the ideological or discursive 'level' of Thatcherism, forgetting the crucial connections between discursive meanings and the political projects and material realities which brought the discourse into existence. Hall (1988:Ch.5) claimed in response that he was being misunderstood, but that once you highlight the contradictory, contestable and discursive nature of the ideological field, it is hard to go back to any 'conspiratorial' view of the relation between ideologies and the material interests they serve.

Many feminist theorists have likewise reworked the conventional concept of ideology, progressively deserting its Marxist basis and adopting instead the notion of discourse as more productive. Thus Michele Barrett relates how Foucault, a key influence in this move, rejects the concept of ideology because,

1) it is implicated, as the other side of the coin, in unacceptable truth claims, (2) it rests on a humanist understanding of the individual subject and (3) it is enmeshed in the unsatisfactory and determinist base-and-superstructure model within Marxism. (Barrett 1991:123)

Unlike classical conceptions of ideology, according to Barrett, theories of discourse treat the ideological medium (codes, language, images, rhetoric, ideals, rituals) as a reality in its own right, not as a transparent cypher for 'material/real' things. What we do is talk, argue, print, persuade etc., and to do this is to act, discourse
theorists maintain, it's not something somehow 'inferior' to acting.¹ Material life is lived through discourse, and discourse itself is material, ie. it is embodied in conversations, broadcasts, policy documents and so on. Thus Barrett emphasises that in Foucault, discourse refers to the relation between texts and their social contexts - it is not an 'idealistic' notion of pure textuality (1991:126). This position thus seems to achieve a compromise between a 'reductionist' concept of ideology and an 'idealistic' concept of discourse. Also, the way in which feminists have adapted Foucault's theories has not been uncritical, and they tend to emphasise most of all that what you get from that critical reading of Foucault is the formula that where there is (discursive) power there is also resistance (cf. Ramazanoglu 1994, D. Jones 1994).

While this might seem to offer a way forward for feminists there is still a possibility, according to Terry Eagleton, that the concept of ideology might disappear. Eagleton argues that 'relations between ideological discourses are complex, variable ones, in which it is sometimes appropriate to speak of the ideological signifier as a bone of contention between conflicting social forces' (1991:253); but he does not believe that ideologies are 'free-floating'. He argues that 'it may help to view ideology less as a particular set of discourses, than as a particular set of effects within discourses' (1991:224, my emphasis). That is probably the theoretical view that I feel can best embrace both the ideological force and the ideological openness of official discourses of training. It also enables me to try to appreciate the different 'appeals' to us within training discourses, yet continue to emphasise a feminist and critical view of the main impetus of the reform process in New Zealand. Thus it is not training, for example, or discourses of training that are ideological in and of themselves; what is ideological is the imposition of a particular understanding of the meaning of training, and the attempt to make that discourse of training work to serve dominant social relations and political projects (and in doing so

¹A point also made by Potter & Wetherell 1987.
exclude or minimise issues of training for women in the current situation). Evans and Davies remind us that 'there is nothing new about a Government using education to sponsor or encourage the development of a particular social/political order' (1988:15). The issue, then, is to find ways of interrupting the rhetoric in order to reveal the struggle over who is to define what counts as valid training. In this sense we can do as Luke suggests and track particular discourses operating at institutional level 'to see how they create different material effects' which 'constrain and shape particular subjects' life trajectories' and how 'they construct and instantiate particular institutional relations of power and social formations' (Luke 1996:20). The agenda for discourse analysis would then become one of 'disarticulating' the text so as to disrupt 'common sense' in order to evaluate whose material interests are being served by texts.

Returning at this point to the issue of how to 'do' critical discourse analysis, Wetherell and Potter warn against the idea that it is possible to follow a set prescription, arguing instead for an approach in which 'careful repeated readings of the materials in search for patterns and recurrent organizations' reveal certain 'prevailing' discourses/repertoires (Antaki 1988:77). Similarly, Parker suggests a format by which, 'the coding of the material organises excerpts from the texts under the different discourse headings, together with some elaboration of the way they interrelate to give rise to certain tacit assumptions about role, "political" effects and social positions' (Parker 1992:123). In loosely using this process on my designated texts, I engaged in multiple readings, identifying a number of different repertoires/themes, recurrent ideas and anomalies, such as 'growth', 'achievement', 'participation', for a more in-depth review.

A major theme running through this chapter is that there are two main levels of 'discourse' in the presentation of reforms around training. The first is the general legitimising framework within which the actual proposals for training reform are embedded. This
framework dwells more on the general need for, and potential outcomes of, training reform, and it seeks to convince us that the reforms have been carefully and consensually developed. Luke's point (itself based on Fairclough's application of Gramscian models of hegemony) that discourses have hegemonic functions is of relevance here (Luke 1996:20).

The second level of discourse is more practical and organisational: it tells us what specifically is being proposed to initiate a training 'culture' and identifies processes, agencies and outcomes that will soon come into effect to achieve the general desired goals of 'level one'. Within each of these discursive levels, further distinctions are worth making. For example, within the first level, there are interesting tensions going on between a 'pluralist' discourse of social inclusiveness and equity, and a more instrumental 'business' discourse which seeks to steer the reforms in a particular, predominantly market-driven and high-tech conscious direction. Then, within the specific training proposals discussion, there is something of a tension between a fairly functional 'what does business need?' element and a concern for achieving more equitable outcomes for some groups. The latter element, together with the persistent running together of 'education' and 'training' is the main example of official discourse that I will be examining. E21C, allows, for example, room for contestation about the point of the new training goals and the quality of their implementation - notably such disputes might arise amongst industry representatives and educational professionals such as polytechnic staff.2

A number of other commentators on educational reform have identified a further range of possible 'discourses' within the restructuring process in New Zealand, and I will draw on these from time to time. Perhaps the most common of these is the idea that the reforms are driven by a 'New Right' agenda (Boston & Holland 1990,

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2 For example, the Association of Polytechnics claim that the NZQA has become, ‘over-bureaucratic’ and has failed to consult sufficiently with the polytechnic sector in implementing the reforms of the 1989 Education Act’ (New Zealand Education Review, 12/3/97).
Lauder 1991, Kelsey 1993, 1995) and I too will assume that there is much in this idea. However, I will try to show that to assume from the outset that this element 'drives' policy possibly underestimates the extent to which outright New Right philosophy has been modified as a result of contestation, this can be seen, for instance, in the continued opposition to establish bulk funding and 'user-pays' structures within education. It also seems better to me to see that New Right construction as working through a more flexible and tangible 'business' discourse, since whilst the latter includes a definite neo-liberal thrust, it still remains quite ideologically malleable. A further distinction has been made, for example, between an 'educative' and 'instrumental' discourse (Codd, Harker & Nash 1990). Again, I agree that something like this is going on, but feel that my own preferred schema gets what is valid in this without having to multiply the categories of analysis too much. The point of the four-fold model I am using (two 'levels', two discursive strands within each of them) is to capture the sense that even apparently strategic policy changes have to work their way through contested ideological and technical ground. Yet in the end I do see the reform discourse as ultimately 'ideological' in that from quite an 'inclusive' overall philosophy, a practice is likely to develop/has developed which continues to marginalise significant social groups - women especially, from the point of view of this thesis - from a pluralistic and forward-looking 'settlement'.

*Education for the Twenty-First Century* has been chosen because it represents the culmination of the reorganisation of education and training that has been taking place over a number of years and because it sets an agenda for policy development in New Zealand into the next century. This document does not have the same ambition as earlier texts such as *Tomorrow’s Schools* and *Learning for Life*, rather it modifies and consolidates a process of educational restructuring that had its roots in the political and economic developments of the Fourth Labour Government (1984-90). The Introduction to *E21C* sets the context for change and outlines the content of the three part document, the first part outlines the
government's 'vision', the second part sets out aims, desirable outcomes and monitoring and evaluation mechanisms and the final part deals with costings. To reiterate, the contention is that there are two main discourses - pluralist and instrumental/business - operating at two levels in \textit{E21C} (the processes of its production and the organisation of the discourses which constitute it) and I will work through the document mapping each of these in turn.

\textbf{2. Community and consensus: the social pluralism within \textit{E21C}}

As with many official policy documents no one author of \textit{E21C} is identified, though the Government, the Ministry of Education and a number of other official agencies are cited as contributors. It is claimed that it took two years to put a draft together, after which it was released as a discussion document for consideration by the community in 1993 by Lockwood Smith, serving as Minister of Education. The stated intention of the draft was to 'create public debate' about 'what we [NZ] want from our education system' (\textit{E21C} 1993:Foreword). A relatively short period - three months - was allocated for public consideration of this 'government vision', established as 'outcomes' and 'targets', for the education system. As a result the Government could claim that '(t)he targets will have been written, not by the Government alone, but by the New Zealand community' (ibid). The views expressed in meetings and taken from other submissions, including responses to a pull-out questionnaire included in the centre of the draft were 'fully considered' by the Ministry of Education before the final version was released in 1994. As a consequence of this process the final version claims that 'the views of the community' were 'widely consulted', and, as such, New Zealanders must now be prepared to show commitment and 'work as a team' (\textit{E21C} 1994:Foreword).

By emphasising the \textit{consultative nature of the process}, by reference to public discussions and the 'inputs of tens of thousands of New
Zealanders', throughout the Foreword in both the draft and final versions, we are left in no doubt that the Government wishes to convey that it has been thorough in its attempts to involve the public in its plans. The Government, in this way, is able to claim that 'a consensus has been achieved on what we need from our education system', this consensus becoming the basis of 'our National Education Aims' (Foreword). Throughout E21C a sense of agreement, unity and determination is deliberately fostered by the authors. The text establishes a particular version of the social world and positions/situates the reader within it through various discursive resources. References to 'the community', 'public consultation', 'work as a team', 'all New Zealanders', and the constant use of possessive and collective pronouns - our, we, us - can each be understood as tactics designed to promote the idea that countless rational and free individuals have been involved in, and now accept, the policy as reflecting their own best interests. In this way a sense of public 'ownership' of and solidarity towards the policy is created allowing, if necessary, any dissension to be characterised as unrepresentative or unwarranted.

This emphasis on consultation and consensus (whether truly meaningful or not) should also be understood as part of an educational tradition New Zealand governments have fostered. For example, in the Review of National Policy New Zealand was described as having 'a long-standing commitment to consultation, to involving the whole community, professionals and non-professionals alike, in the processes of choice and decision-making.' (OECD 1983:22). The Curriculum Review released in 1987 was the product of two years extensive debate and should be seen as, perhaps, one of the last examples of this tradition. Though the importance of consultation continues to be emphasised, it would seem that the practice has become increasingly gestural. The Picot Report (1988), for example, despite advocating major educational change allocated a mere six to seven weeks for response. And there were protests from the Association of University Staff about the inadequate amount of time allowed for consultation over the Hawke Report
Yet, it obviously remains of importance to government that policy documents such as E21C are seen as collective enterprises based on public discussion, thus the explicit emphasis on the consultative nature of the process. However, such processes are described by Boston and Holland (1990:8) as 'a procedural routine without any genuine prospect for influencing the policy process'. And indeed there appears to be empirical evidence to support such a claim if the draft and final versions of E21C are considered together. It seems somewhat surprising, given the emphasis on extensive consultation, that there is such similarity between the two documents to the point where much is word for word the same, and when differences do show up, they are of a minor (though perhaps significant) nature.

In this context it is worth also examining the first of the 'National Education Aims', that of promoting 'a community of shared values' (E21C:23). In the opening sentence of that section reference is made to the considerably varied values of an increasingly diverse society in New Zealand. This is stated in an objective, matter-of-fact way, though there appears to be a need to reassure the reader that this diversity is acceptable because, we are told, it is happening in other developed countries as well. It is asserted that all New Zealanders should acquire 'a clear understanding of commonly held values of individual and collective responsibility and accountability'. We are then informed that it is important that every New Zealander 'should have a clear understanding of their own values and beliefs while developing a respect and sensitivity to the rights of individuals, families and groups to hold values and attitudes which are different from their own'. It is further maintained that in response to the challenges of a changing society there is an 'urgent need to clarify and agree on attitudes and values which we want to have as an integral part of our New Zealand society' (represented by the

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3 Such matters are a continuing concern as evidenced by the disquiet expressed about the inadequate timeframe, lack of 'rigorous research', narrow terms of reference and a review team of officials-only of the new Coalition Government's review of tertiary education (Ledgerton, M. 'Review may lapse into tokenism' p.14 N.Z. Education Review 21/5/97 ).
government as including: honesty, reliability, individual responsibility, respect for others, respect for the law, tolerance, rangimarie, fairness, caring and compassion, aroha, non-sexism and non-racism').

So, we have four sets of values to negotiate: our own as individuals, the 'values' of others, commonly agreed ones and those upheld by the the state. However, the 'commonly held values of individual and collective responsibility and accountability' referred to in E21C should essentially be understood as part of the current enterprise culture more fully advocated in the National Party's 'Social & Economic Initiative' which focusses on self sufficiency, self-reliance, and anti-dependency (Bolger, Richardson & Birch 1991).

While on the face of it these values may seem to be uncontroversial, it is pertinent to note a comment made by Geoffrey Hawke, in his report on tertiary education and training, '(w)e observed that Government uses PCET to disseminate values. Many of these, such as honesty, tolerance and compassion are uncontroversial in abstract, although in particular circumstances may be hotly contested' (Hawke 1988:24). Unlike the other nine aims, this one does not have a set of 'desirable outcomes', 'targets', or any designated resourcing attached to it, nor is there any reference to 'monitoring and evaluation'. The government appears not to be setting any strong leadership or modelling role for itself here, instead the promotion of values is to be the responsibility of each of the education sectors, who are in fact required to operate first and foremost in terms of effectiveness and efficiency. Perhaps, given this context, the focus on 'values' is more an exercise in social control rather than a genuine attempt to contribute to the creation of a fair and open society.

There are a number of references in E21C to the 'rights' of all New Zealanders to education and the benefits they bring. There are two issues for consideration here, the first concerns the Government's objective of a 'participation rate for 18 to 24-year-olds which is in the top-performing group of OECD nations', expressed as an outcome under the aim of 'excellence in tertiary education, postgraduate
study, and research' (28). We are informed that the growth rate of
the tertiary education sector between 1985 and 1993 has been on
average 8% per year, with 34% of 18-year-olds participating in that
sector in 1993. This growth, it is claimed, is the result of 'increased
student demand reflecting an awareness of the need for higher levels
of education and training for participation in the rapidly growing
New Zealand economy' (28). Moreover, it is stated that measures to
improve access to PCET for students from diverse backgrounds has
been successful 'despite increased costs to students' (ibid). It could,
however, be argued that this increase might also be to do with the
decreasing employment opportunities available as well as changes in
social welfare criteria which deprive young people of income
support. Demographic issues also feature with a reference to the
need to sustain increased participation by concentrating on the
growing older age group 'as the rate of growth of participation in
tertiary education and training by school-leavers slows' (ibid). Thus,
the Government has set targets which will see student numbers in
tertiary education increase from 130,105 EFTS in 1995 to 146,720
EFTS in the year 2001 and increasing numbers of these must
eventually come from an older age group. But, as this targetted
increase (which is lower than that set in the draft version) will
require 'higher levels of over-all resourcing' and the Government is
committed to curtailing expenditure in the public sector, 'the best
ways to achieve a sustainable means of funding the desired levels of
growth in this area' are under review (45). The government's role in
achieving increased participation is thus likely to be one of setting
targets which tertiary institutions will have to meet within the
constraints of current or decreased levels of funding.

The second issue concerned with the rights and benefits theme is
specifically dealt with in aim 7 which promotes 'equality of
educational opportunity for all to reach their potential and take
their full place in society' (34). The government states that its role
here is one of encouraging an 'educational environment in which the
benefits of education are available to all through fair systems of
access' (ibid). It is claimed that it is social and cultural changes,
such as the changing roles of women and men and the Treaty of Waitangi, that have made the government aware of the barriers to participation and success. Inequality thus becomes divorced from group disadvantage structured by unequal relations within the labour market, the family, education and so on. Instead, with this redefinition of equity, it is 'changing gender roles' and 'social and cultural diversity' that are responsible for disadvantage and inequality. In a further and rather (dis)ingeneous way, by arguing that 'it is possible to identify groups in most sectors of education which face barriers to participation and success' (ibid) the education system itself becomes a cause of inequality and, as such, the focus for reform. It thus becomes the duty of educational providers to eliminate 'barriers' rather than a wider government responsibility to address the issue multi-dimensionally. For some students, however, these institutions, reformed or otherwise, 'are not appropriate to their needs', which, it is claimed, would be 'better met by private and community providers of education' (1994:18). Government support therefore, becomes available to accredited private and community training on a contestible basis. Yet, the fact that these providers are expected to focus on TOPS, Skills Pathways and Skills Enhancement programmes, (rather than wider education and training programmes), is not likely to optimise student choice or success.

The implication is that once barriers have been removed and provision widened it will be possible for everyone, by taking advantage of 'choice', to compete equally. Outcomes will depend on individuals making the right choices, failure therefore will be the result of 'bad' choices. The notion of choice is a key component of current educational restructuring advanced by Treasury and policy makers on the basis that 'students can make better choices' (Treasury 1990). They are free to do as Sir William Stubbs suggested in an interview with Kim Hill, 'students know where the opportunities are - they follow the market' (National Radio 11.4.95).

The operationalisation of choice in this way, however, owes much to

4Sir William Stubbs is Chief Executive of the Further Education Funding Council, U.K.) and was visiting NZ to talk to the Association of Polytechnics.
neo-liberalism, a political ideology which has as a central tenet the idea that over-centralised bureaucratic structures have reduced people's choices (Codd 1993). The key to enhancing choice, according to the government, is to improve access. However, the promise of 'choice' is unlikely to be realised if the narrow interpretation and the limited agenda set for this goal in E21C is anything to go by. Rather, it is argued, that in a society in which students start with unequal resources and are expected to pay increasing amounts for their education, it is unlikely that they would make other than instrumental choices (Peters, Peters & Freeman-Moir 1994:56). And more generally this idea of choice is illusory for a number of reasons, for example it does not take into account such factors as socialisation processes, the cultural aspects of schooling, the labour process itself or the discriminatory practices of many employers, all of which contribute to the limited achievement of certain groups. The concept of consumer choice is a major theme of educational restructuring promising accessibility and flexibility for all, yet the reality is somewhat different when the choices of some individuals/groups negatively impact on the choices of other individuals/groups (Kenway 1995).

In previous policy documents barriers to access or participation have commonly been the focus of attention, in this one emphasis is also put on barriers to achievement and success, a development which has the potential to improve the situation of some groups. In the case of the tertiary institutions, programmes attracting students from groups 'under-represented in each tertiary institution's body, or disadvantaged in terms of their ability to attend' are one means used to achieve 'equality of educational opportunity for all to reach their potential' (E21C:35). But, it falls to the institutions to 'identify unfair barriers to achievement and success' and no examples of what these barriers might be or even any definitions of achievement and success are given. The complex issues of achievement and success for women is the focus of attention in the next chapter.
Overall, the discourse of the general framing part of the reforms in *E21C* seems to be informed by a pluralist conception of society. Fundamental to this perspective is the idea that political power is won and sustained through and by democratic procedures which 'legitimise' government activity. It is democratic procedures - such as regular and competitive elections in which all who qualify can participate - which allow the state to maintain its authority by claiming they 'rule' with the consent of the people. In addition, a pluralist society is one which claims that groups with differing interests, values and attitudes can also influence the state through their activity. Potter makes the point that the 'pluralist perspective pays particular attention to the inputs from citizens into the state, inputs which affect the content of state policy' (D.Potter 1986:33).

In the case of *E21C* the Ministry of Education invited interested groups to make submissions, and meetings, hui and fono were held in seventeen cities and towns to elicit inputs for this policy. The commitment to a consensual approach assumes that whilst all groups can have their say, the influence of no one group is given priority over another. Moreover, having a 'voice' does not necessarily mean that groups must have power or money. The idea is that rational discussion and compromise will win the day and the government's role is merely to orchestrate the democratic process and regulate social life.

An illustration of the way in which government's role is assumed to be one of mediation between different interest groups within the educational arena is the way in which the notion of 'provider capture', has been fostered by the Treasury and utilised by National and Labour Governments to promote the claim that the 'interests' of one group had been promoted over that of another. In an educational context it was claimed that education professionals had advanced their interests at the expense of the 'consumers'; and related to this that the middle class advantage themselves at the expense of the working class (Business Roundtable 1994:126, Treasury 1987, Shuker 1987). Within *E21C* this understanding of how the state works to balance the interests of various groups can be illustrated
by its claims to be concerned with the position of Maori, Pacific Islanders, the unemployed, women and people with disabilities. The rhetoric of the document is inclusive, appearing to treat the social well being and aspirations of those groups as independently good things, with education playing its part in securing this for New Zealand's harmonious democratic culture.

Apart from being careful not to overestimate this apparently well-meaning element in the discourse of E21C, two general critical points about pluralism can be made here. The first is that pluralism seems to take for granted notions which are highly problematical, such as everyone having an equal right to be heard, that each contribution is accorded equal weighting, and the relative naivety of pluralism in downplaying the political consequences of 'unequal distribution and control of resources' (Flax 1990:233). Secondly, pluralism is only one of a number of possible perspectives on the state. Whilst the complex debate about how to conceptualise the role of the state is outside the scope of this work, it is clear that Marxist, feminist, and radical democratic approaches would challenge both empirically and theoretically the assumption within pluralist theory that the state is some kind of neutral arbitrator, or even-handed 'broker' of the various social interests which make political demands (O'Brien 1988, Sharp & Broomhill 1988, McLennan, Held and Hall 1984).

Nevertheless, the government has tried to embed its reforms in the language of consensuality and cooperativeness. There is a powerful sense of education and training being seen as a public enterprise committed to social goals and shared values. Quite possibly this pluralist discourse could be seen as 'mere' rhetoric, or as an attempt to incorporate reformist opinion, or an effort in the exercise of 'hegemony' by a group/ideology/state that is much more strategic and manipulative than those inclusive pluralist sentiments suggest. On the other hand, as mentioned earlier, discourses can be 'contradictory' and contain different ideological elements, and it would probably be over-conspiritorial to see nothing of value or
principle in the pluralistic aspect of the E21C discourse, even though pluralism itself can be criticised from a more radical standpoint.
1. Introduction

In the last chapter, I discussed some debates around discourse and ideology, and applied them to the more political side of E21C. I concluded that the discursive element of social pluralism in the document is problematic in various ways, but it is not 'false' or 'mystifying' as such, as crude versions of the theory of ideology might lead us to believe. In this chapter I seek to analyse the more economic dimension of E21C, indeed I want to suggest that it is an 'economistic' dimension, because however real the social pluralism in the discourse is, ultimately it takes second place to the more dominant rhetoric which redefines training and education according to neo-liberal economic criteria for 'successful' public policy. The discourse of E21C can be seen therefore as contradictory and multidimensional up to a point, but it still has a running thread
which reveals its continuing 'New Right' colours, particularly if placed within its context - the more general climate of 'restructuring'. In making this point, there are four steps. Firstly, I look at the increasing 'marketisation' of education and training, some of this being achieved through neutral-sounding concepts such as the need for a 'training culture' and 'seamlessness' throughout the whole system. Secondly, I argue that beneath the 'businessification' of educational provision lies a distinct model of educational 'investment', namely human capital theory. Thirdly, I underline the importance of the notion of 'skill' for this model, and contest the dominant understandings from a feminist standpoint. Finally, I take a broader view of the whole reform strategy by considering how far it can all be said to boil down to a matter of 'capitalist reorganisation'.

2. Changing technology, changing markets.

The context of and rationale for current educational reform is based on the idea that accelerating developments in production and technological processes are having a significant impact on work practices and organisation such that the system needs to be reorganised to better meet the needs of business and industry and as a result contribute to economic growth. This theme has been a constant feature of reports in New Zealand over recent years (MOE 1994, Todd 1994, MOE/Smith 1991, New Zealand Planning Council n.d.). It is claimed, in E21C, that the economic well-being and success of New Zealand is dependent on how well we adapt to these new conditions, and above all we are urged, as expressed in the draft version, to 'learn to make change our friend' (1993:7). The impression given is that change is inevitable, progressive, technological and basically outside our control. Certainly, no alternative strategic scenarios are even hinted at. The key to success, we are informed, is investment in education and training, which is 'investment in our greatest resource: people' (1994:6). Training has thus taken on significant importance and is represented as 'pivotal to the economic and social goals of the 1990s' (Sheldrake & Vickerstaff
1987:xx) and the baseline is the current range of felt needs in industry, thought necessary for contributing to an internationally competitive economy. One main purpose of this emphasis on investment is to encourage increased participation in PCET, yet because this has obvious cost implications in a period of fiscal restraint, the final objective is to find a means of financing expansion without increasing government expenditure.

Accordingly, in E21C the themes of 'efficiency' and 'effectiveness' are advanced as the preferred tools for improving resource use and accountability in education. E21C alleges that the 'demand for funding for education and training is always greater than the Government can meet' so it is vital to ensure the effective use of available resources (40). Effective and efficient resource use in this context represents a new form of management culture in which institutions are required to follow a market model and operate more like business. Competitive mechanisms are used to encourage institutions to become more commercial by competing for specific pools of money, resources and students (Charlesworth 1993). The Government has actively encouraged the growth of private sector tertiary training by accelerating state funding to these organisations, thus reducing the gap between the levels of subsidy to the public and private sectors. Alongside these changes, the deregulation of the setting of student fees and the current proposals to impose a capital charge on the public tertiary sector all contribute to a radically new model of tertiary education and training. In New Zealand (and in Australia and elsewhere) these developments taken together, it has been argued, are manifestations of government's intention to privatise the tertiary sector (Ledgerton 1996:12, Patterson 1992:39-40, Lauder 1991). Marginson qualifies this by suggesting that while the introduction of the student loan scheme 'established the market investment model of student financing', government subsidies prevent the system from being an 'entirely market-based one of supply and demand' (Marginson 1994:52). Kenway claims that the commercialisation of education, involving the development of new markets for the private sector,
better reflects what is happening (Kenway 1995).

The education/training discourse is thus increasingly characterised by a vocabulary which redefines existing educational activities and relationships in market terms, education becoming a 'product' which is 'delivered' and its users conceived as 'consumers'. At one and the same time, the learner is constructed as both a customer actively selecting from a menu of services to suit his/her own needs and interests, and as a passive consumer of units of learning determined by the industry/employer. These developments also extend to existing practices such as teaching whereby the curriculum becomes redefined as a 'product' or 'package' and teachers become facilitators for their clients. This 'rewording' serves to recontextualise activities and relationships which in turn becomes part of the 'engineering of social and cultural change' (Fairclough 1992:8). While this is the case in principle in $E21C$ it is interesting to note that the document continues to refer to 'students' rather than 'clients' and 'customers' as might be expected, although other references to 'outputs' and 'inputs' would seem to anticipate this development.¹ 'Outputs' are here to be understood as 'qualifications that the labour market really needs', reflecting the influence of an increasingly instrumental agenda (Charlesworth 1993:7). In response to the need for tertiary institutions to position themselves advantageously, increasing emphasis has been placed on marketing aspects which distinguish one institution from another, one course from another, one way of studying from another, and so on. The Polytechnics have certainly adopted some aggressive advertising of their wares, and a whole new glossy language of promoting one's own 'excellence' is now a routine feature of the present discourse of educational competition.

It is stated that efficient and effective resource use often requires decisions to be made at the local level, and new management structures involving changing governance arrangements have been

¹Polytechnic material generally now refers to 'clients' and 'consumers'.
implemented, along the lines suggested by Probine-Farghar in an earlier report (1987:42). The state for its part has taken a more limited interventionist role - that of supplier of policy and resources, and has in doing so largely 'divested itself of responsibility and accountability for the delivery of educational services' (Kelsey in Easton 1989:89). It is on the basis of this new operational/institutional independence that governments can make demands for 'accountability', conceived in financial and service terms. However, the possibility of local autonomy remains curtailed by parameters set by government, which continues to determine the level of grant and criteria for access to contestible funding. While institutions are given some operational discretion, the fact that targets, funding and performance criteria in £21C are imposed externally makes it a limited devolution. Marginson describes this as 'typical of relations of power in the modern era', and suggests that 'conformity with a whole range of government policies' can be 'forced' because those controlled do still retain some form of autonomy. Institutions have the possibility/choice not to compete, but since not to do so would mean losing out financially, they comply (Marginson 1994:65-66).

Within the pressures of the 'increasing rate of change' it is argued that the management and resourcing of education must be 'flexible' enough to 'respond rapidly to the needs of individuals, society and the economy' (£21C 1994:40). Implicit in this statement is the notion that only a market model of training is able to do this. These different sorts of 'needs' are apparently accorded equal weighting and indeed there seems to be an assumption that they coincide. There is little recognition that in practice within and between each of these categories there are competing and conflicting demands. Moreover, within a market model there is little regard for activities that may be valuable but which are not obviously mainstream or commercial, and, it is argued, an emphasis on the instrumental means that certain areas (such as the humanities) will be vulnerable to attack (Taylor & Henry 1994:122). And, in the context of the polytechnics, concern has been expressed that their increasingly
vocational role is likely to lead to a 'narrowing of functions and curriculum' (Peet & Tobias 1988:162).

A notable feature of the training reform process is that such shifts towards marketisation are often rationalised in 'technocratic' or 'techno-scientific' terms, extending a continuing feature of education and training reform texts of the recent post-war period. Technological change is the very basis upon which exhortations to increase investment in education and training is made (Smith 1991, Lange & Goff 1989, Hawke 1988, Probine-Farghar 1987). The rhetoric of each of these reports presumes an increasingly complex economy, growing and changing mainly as the result of developments in technology and communications, which evolve continuously. And this, it is argued, requires a planned response informed by scientific forecasting and a technologically literate and skilled population. It is claimed that well-planned education and training measures will lead to an increased number of better skilled and adaptable workers which will enhance productivity and, in turn, improve New Zealand's trading position. However, not only would it be naïve to see the notion of a predetermined technological future as existing outside of more general ideological debate (Gorz 1977), it is far from demonstrated that such technocratic visions would result in new jobs for all those subjecting themselves to training. Nor is it likely that, for many people, the result would mean an end to work processes that are repetitive, low level and unfulfilling (Brown 1994). In all these respects, the whole training revival is surely 'being oversold' (Mulgan 1996:12).

Another feature of the discourse described by Codd as technicist-empiricist is its instrumentalism, that is, the presentation of policies as though they are merely 'expressions of educational aims', a 'set of means to given ends' (Codd 1990:136). E21C can be explicitly read at this level as if it was about providing information, outlining a plan of action, identifying goals and setting targets. Together these expressions of policy appear as practical and sensible responses to a situation which has already, and with little
if any public debate, been characterised as one of potential crisis to which the present education and training system is simply unable to adequately respond. In particular, it is maintained in *E21C* that an essential requirement for achieving international competitiveness is '(a) highly skilled workforce', 'an appropriately skilled and adaptable workforce' and that training in industry is pivotal to accomplishing this (1994:32). A number of programmes, involving on-job and off-job training, are outlined as initiatives which, it is claimed, will 'provide the skills, knowledge and understandings needed by industry' (1994:16). The baseline is therefore the current range of felt needs in industry, thought necessary for contributing to an internationally competitive economy. However, as commented upon earlier, some critics argue that this preoccupation with skills training reduces knowledge to a series of fragmented, atomised, modular tasks with little scope for real learning and understanding (Gleeson 1990).

It is maintained that the reforms in *E21C* are the strategic stimulus for the creation of a new national 'training culture' which extends formal training to more and more New Zealanders. The basis on which this is being done, we are told, is because unskilled work is declining and it is necessary to develop a highly skilled (and by implication more productive) workforce in order to successfully compete in the international marketplace. In these statements, the presumption is that the present economy both requires and encourages a mass of skilled workers, flexibly trained and flexibly situated. At the broadest level, such a 'post-Fordist' model can be interrogated (O'Brien and Wilkes 1993), for it gives out the questionable impression that there are skilled jobs to be had for all, if only the trainers could deliver. Yet many commentaries now exist on the serious social divisions which accompany this 'two thirds-one third' society, and evidence now abounds that the bulk of the 'new' flexible jobs which are emerging (mostly women's and mostly part-time) are hardly 'skilled' in any traditional sense and certainly not paid as such (Edwards & Magarey 1995).
Training has been re-interpreted to mean skilling, and an education and training strategy has, in effect, become a skills development strategy as exemplified by E21C, 'numerous studies...have identified the lack of skills training in New Zealand' and that when training was made available it 'may not have taken into account the needs of industry as well as it should' (1993:16). Yet the need for a massive increase in highly skilled workers is not substantiated according to Gordon and Snook (1992:57). And evidence from the US also demonstrates that most jobs created by high-tec industries are in low-skill, low-paid areas of assembly line work (Apple 1987, Brown 1994).

In determining the reasons for this stated dissatisfaction with the current system of skills training it is necessary to refer to earlier education and training reports which deal with the primary means of skill training in New Zealand - the apprenticeship system. The appropriateness of this method of training new labour entrants was questioned, with claims that apprenticeships were too long, too inflexible and over-controlled by the unions (GNIS 1991). Indeed, as far as women were concerned these criticisms certainly seem justified given their very limited participation, '(e)ven when there has been formal training some groups of people have had trouble gaining access to it. Women, for instance, have found it difficult to get apprenticeships' (GNIS 1991:13). But, there is the suggestion that rather than an attempt to satisfy equity concerns, other agendas might be at work, such as the breaking of union control of training, which in its traditional form has a direct impact on entry to training and wages paid to unqualified and qualified workers (Ryan 1984, Moos 1983). Paradoxically, there was little criticism in any of the reports of the quality of skills training involved in apprenticeship training.

The overall strategy for establishing the government's vision and organisation of industry training comes under the 'banner' of Skill New Zealand (SNZ), 'designed to extend the education system into the workplace' (E21C 1994:16). Significantly, it is not educationalists
who lead this development, but rather industry and employers who have that responsibility, through the newly-created central state organisations established under the Education Amendment Act 1990. The blurring between education and training is an obvious feature of this section, particularly as it relates to the provision of industry-determined training units to be used in schools. Industry Training Organisations (ITOs)\(^2\) under the banner of *Skill New Zealand*, are to be the major players in developing on- and off-job training programmes, designed with industry's needs in mind. Training is to become more systematic, in terms of provision and qualifications, and one of the roles of ITOs is to develop a structure that will 'extend workplace training across all industries, including those industries where little or no systematic training was done before' (16). They have responsibility for setting and monitoring skill standards and designing and making arrangements for the delivery of training. While traditional providers of industry training such as polytechnics are acknowledged as still having a role to play, the impression given is that this will be as junior partners, with few questions being asked about the assumption that 'industry knows best'. The state itself in these declarations is thus positioned as both non-interventionist/decentralised and highly interventionist, as 'simultaneously rolled back and rolled forward' (Charlesworth 1993:12, Chitty 1989:213). A further concern is that there is evidence that when training is left to employers many do not invest enough (Sheldrake and Vickerstaff 1987), and certainly appear not to be concerned to ensure that women do not suffer disproportionately (Payne 1991).

Another central proposal which appears 'functionally' or technically desirable is the introduction of a 'seamless' education system, in which it will become irrelevant 'which provider or in which educational programme students are studying' because 'all learning will lead to qualifications within the same framework', ie the National Qualifications Framework (20). The New Zealand

\(^2\)An important part of the business of Industry Training Organisations (ITOs) includes getting the NQF into the workplace and setting national skill standards for registration on NQF.
Qualifications Authority (NZQA) is the body responsible for overseeing the setting of standards and qualifications on the Framework. Standard setting bodies, such as ITOs, have to register their 'unit standards' on the Framework in order for them to be counted as credit towards recognised qualifications. It is intended that eventually 'all education and training towards national qualifications, whether in school, in the workplace, in training establishments, or in tertiary institutions, will be recognised within one coherent system' (ibid:16). There are to be eight levels on the Framework, with achievement of standards registered at level one - four credited towards a National Certificate; levels five, six and seven credited towards a National Diploma; and level seven towards a degree, with postgraduate degrees, diplomas and certificates recognised at level eight. Each qualification will include 'particular unit standards at specified levels of the framework', these being assessed in the workplace or 'in other venues' (ibid). Under this regime, individuals will be able to 'undertake education and training in more than one setting at the same time', the example given is that 'students in the senior secondary school...could combine regular school courses with polytechnic or university courses and workplace training provided by local industries' (ibid). Schools will be able to offer university and polytechnic courses and 'programmes developed by industry for industry through Skill New Zealand' (ibid). It is claimed that the development of the NQF will allow providers 'greater scope and flexibility in what they can offer' thereby giving students 'increased opportunities to have their needs met' (ibid).

These proposals assume without question that the resulting system is good for the country, for the providers, and for students alike. The belief that a training strategy run on market-led lines is more efficient and effective than any centrally-planned and controlled government initiative is a consistent feature of the new reforming discourse in Britain and Australia as well as New Zealand. It is argued that creating a competitive environment for providers will offer them 'new opportunities', such as 'greater scope and flexibility
in what they can offer...by entering into arrangements with each other or local industries' (20). This type of arrangement, however, assumes a level playing field and ignores issues such as which institutions will get which courses, along with suspicions that those courses requiring expensive plant will get left to the 'public' sector while the private sector pick up the cream. In reality a free market approach demands an intensification of competition between institutions with each having to position itself advantageously in order to attract students, resources etc. The new system is only 'good for' providers, perhaps, in the sense that they must conform to it or fail.

The seamless system, with its portable qualifications and market-conscious, mobile students is also taken for granted to be good for education generally and the student's learning and employment outcomes. But critics of the competency-based learning (CBL) approach that is embodied in the Framework idea claim that this way of packaging education more readily lends itself to a process of commodification, in which knowledge can be bought and sold in a market-type exchange (Kenway 1996:3). CBL approaches are narrow and prescriptive, it is asserted, completely ignoring complex epistemological issues about knowledge formation and transference, and indeed obscuring a full appreciation of the nature of work in modern societies (Hyland 1994, Stevenson 1993). Education and training become less about the development of creative and intelligent thinking, or social and cultural understanding, or in-depth expertise, but more to do with the acquisition of pieces of information which can be exchanged for pieces of paper. This is the impulse behind the emphasis in E21C on all learning leading to qualifications. Other pertinent criticisms levelled against CBL suggest that it is more about administrative reform than about improving learning: 'there is strong evidence that the adoption of CBL results in increased bureaucratisation and a system that is more cumbersome, time consuming and costly to administer' (Mead 1995:20). In support, it is already clear that many Polytechnics (as reflected in their Annual Reports) are finding it difficult to meet the
significantly increased costs associated with compliance to the NQF.

However, supporters of the NQF insist that CBL methods do not need to be restricted to behaviourist criteria of competency and 'can include processes as well as outcomes' (MLG 1994:17). Others argue that the traditional methods of assessment have been elitist and unfair by favouring one kind of learning and assessment over another, thereby excluding the majority from higher education. The arguments and counter arguments about CBL involve deeper ideological issues to do with the hegemony of liberal notions about education and training and continue to provide material for much debate on both sides of the Tasman as evidenced by the continuing contributions to publications such as *Campus Review*.³

Training, understood as an industry-led, competency-based enterprise, provided by a wide range of institutions to a greater number of participants is the way that government intends to achieve its goal of appropriately skilling the nation. But this can hardly be thought of as a one-off process, since the 'rapid pace of technological change' will surely mean that some skills will become irrelevant, whilst others will need constant updating and others again, as yet unknown, will need to be acquired. Accordingly, *E21C* offers not only some instrumental improvements to provision, but is dedicated to the *development of a training culture*, a project which has much to do with shaping a national, collective consciousness. The new qualifications system is seen as having an essential part to play - the 'qualification system will encourage life-long learning' (30). And an equally important plank in this particular version of a training culture is the promotion of industry-based training programmes as an alternative to tertiary-based training programmes. Lifelong education and training - a long-standing 'humanist' vision, relatively unconnected to the needs of business - thus becomes redefined in instrumental terms to a practice of

³*Campus Review* is an Australasian publication for higher education and training; see Vol.7 No.5 p.1 for an example of a contribution to the debate about the values attached to different kinds of learning/institutions.

The final section of *E21C* deals with the costing involved in meeting the targets established under each of the National Education Aims, which in future years it is predicted will 'imply large fiscal costs' (*E21C* 1994:Foreword). The Government signalled their intentions regarding this by referring to the 'fiscal challenges and trade-offs that face New Zealanders' (ibid). They predict that the cost of meeting the 1995 targets are within planned expenditure but the cost of meeting future targets will 'be subject to future Government decisions' (ibid). The cost of meeting increased levels of participation in tertiary education has funding implications which will involve some combination of 'government contributions, contributions from students, or through savings or efficiencies' (45). While these are not elaborated upon in this document, the evidence to date⁴ is that students will be expected to pay an increasing percentage of the costs involved. The system of bulk funding tertiary institutions alongside a continuing reduction in government subsidy for student tuition fees has enabled the state to pass on some of the cost of funding the increased number of students in the system.⁵ It is institutions and students who carry the burden and the blame for

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⁴The Todd Report recommends that students pay up to 25% of the cost involved (MCG 1994).

⁵Since the introduction of the bulk funding system in 1991 the government has calculated its funding to tertiary providers using an EFTS formulae which allocates a tuition subsidy per student. This subsidy has been reduced by one percent per annum in line with recommendations in option A of the Todd Report which suggests that student fees increase on a yearly basis until they reach but not exceed 25% of tuition costs. Cabinet makes the decision on the number of EFTS places to be purchased from the tertiary sector for the next academic year and each institution bids for a share of these based on current provision and predicted growth areas. For Polytechnics, along with other tertiary providers, this has meant that the bulk funding they receive from government is organised in such a way that it is necessary for institutions to carry unfunded EFTS provision each year in order to secure funded growth for the following year. The base rate set for tertiary tuition provided by the government does not represent the actual cost of tertiary education so the shortfall between the grant and the cost of running the institution is made up of income derived from student fees and from other sources. In all the annual reports of the polytechnics dissatisfaction with this situation is evident though for different reasons. One of the main areas of concern is that the short term nature of the grant makes it difficult to plan ahead. Another is to do with the plight of the smaller institutions who claim the the EFTS formulae discriminates against those without the high population bases of urban centres. A further and shared area of concern is the effect of higher fees on students.
finding the extra money necessary, effectively allowing government to remove itself from direct association with rising fees, increased class numbers and reduced teaching time. The government can then appear as the guarantor and regulator of 'efficiency' and 'accountability' in the new training market environment, whilst advertising to the OECD and OPEC that their concerns about low levels of participation in PCET in New Zealand are now groundless, thanks to the sea-change in training attitudes and organisation.

2. Training as investment in human capital

Investment in education is an investment in our greatest resource: people. (E21C 1994:6)

We must invest in people, our greatest economic resource. (Draft, 1993:7)

The significance of investment in education and training is that it can raise the productivity of the labour force... (NZ Business Roundtable 1994: 2)

These statements draw upon a development in education which is relatively recent - the study of the economics of education⁶ - a project kickstarted by Schultz's lecture on 'investment in human capital' in St. Louis in 1960 (Johnes 1993). Informed by neoclassical economic theory the concept of human capital was developed to provide an analytical framework for understanding the relationship between education, productivity and income. In demonstrating that an investment in education was in effect an investment in the future in terms of improving the quality of labour, thereby enhancing productivity and, as a consequence, the comparative advantage of a nation, a critical component of the theory of human capital was established. (There are other non education investments that also contribute to the development of human capital, ie. health.) Becker (1964, 1975), closely associated

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⁶Only 45 items listed prior to 1951- cited in Blaug's bibliography (1966) Economics of Education.
with the development of human capital theory, contributed some important insights, particularly the observation that investment in training was determined rationally by calculating the cost/benefit of training in terms of future rewards against current loss of earnings. Despite the relatively new and developing nature of this paradigm, the idea that investment in human capital is an essential component in achieving economic growth arguably dominates the educational environment in New Zealand today (Fitzsimons & Peters 1994, OECD 1993, Marginson 1993). Human capital theory assumes an instrumentalist view of the relationship between education and work and, as such, fuels debate, more apparent during periods of recession, about the 'purpose' of education and training and the 'relevancy' of certain programmes.

Human capital theory builds on long standing neo-classical and rational choice models which involve notions of 'self-interested individualism and contractual exchange' in which 'the autonomous agent ...trades with other agents in order to maximise a utility or profit function' (Strassmann 1993:54). National economic policy geared to these ideas treat the total labour stock or human resource of an economy as a major productivity factor. In a sense, governments are 'agents' operating at the macro level and responsible for making effective and value-enhancing investment decisions about the use and productivity of labour as a resource or capital form. At the more 'micro' level, each economic agent is conceived as a self-interested individual who has needs, desires and resources but who, because 'his resources are always inadequate to attain all his wishes and desires... must make choices' between any number of possibilities (Strassmann 1993:60). At the macro level,

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7 Marginson refers to three phases of human capital theory in relationship to education policy 'The first phase, in the 1960's was one of public investment in human capital, dominated by claims about a link between education and economic growth'. The Currie Report 1962 exemplifies this in New Zealand, 'not to educate them to their maximum capacity is to leave at least part of the country's resources underdeveloped (1962:12). 'The second phase was a period of eclipse, in which the earlier policy assumptions were abandoned and rates of return equations were confined to a modest place with a body of neo-classical theory. The third phase (not completed) saw renewed policy investment in human capital. But in the free market climate now prevailing, the emphasis is on private rather than public investment' (Marginson 1993:40).
then, there is assumed to be a direct correlation between investment in education and national well-being, while at the micro-level education is seen as a personal investment strategy with benefits accruing to individuals, education thus conceived having both production and income-enhancing effects. For my purposes, it is vital to note that this model of 'autonomous, rationally optimizing agents', at both levels outlined, underpins E21C with its emphasis on the benefits of educational investment - 'success will depend in large measure on the investment we make in education and training' (1994:6).

In terms of gender analysis, the human capital perspective explains the secondary labour force status of women, concentrated in low paid occupations within a predominantly female workforce, as reflecting an investment strategy based on the anticipation of an interrupted or discontinuous working career. By investing in less human capital, women are assumed to be less skilled, therefore less productive and, as a result, earn lower wages in a competitive labour market which values maximum productivity. In terms of occupational segregation, in withdrawing from the labour market to meet home-based commitments, women's human capital is assumed to depreciate, thus lowering lifetime returns to investments. So it is predicted that women will tend to invest in skills and chose occupations on the basis of relatively low depreciation rates. Human capital theory, then, explains women's labour force status as a product of women's own rational choices which, while not necessarily good in standard economic terms, are nonetheless rational in that they 'reflect more closely women's own social knowledge which while perhaps incomplete is not false' (Boudon 1989:7). From an employer's perspective, preconceived ideas about levels of occupational commitment, productivity and ambition mean that female workers are rewarded differentially for work of similar value to male workers; are not recruited for certain jobs and not given opportunities to train (Payne 1991:151, Horsfield 1988:20-21). In human capital terms, this is not about discrimination as such but rather reflects the different amounts of human capital brought to
the market, thus allowing theorists such as Mincer (1962) to refer to the 'differentiated' rather than 'unequal' nature of the genders.

Related to this, segmented labour market theories rely on a conceptualisation of the labour market as consisting of a primary sector and a secondary sector. Workers in the primary sector have skills which are scarce, valued, firm specific and as such are well rewarded, whereas secondary sector jobs are those requiring few skills and as such are insecure, poorly paid and often part time. Women are associated with jobs in the secondary sector because of their perceived lack of skills and commitment due to the priority they give the family.

Human capital theory predicts a direct and positive relationship between certain variables, these are levels of education and training and increased earnings and levels of unemployment. And, superficially at least, it does seem as though this is the case, workers with higher level qualifications do earn more than workers with few or no qualifications, and their employment rates are lower (Statistics NZ 1994:25, Horsfield 1988). Using information collected from the 1986 Census of Population and Dwellings, Horsfield found that 38% of women in the full-time labour force had no school qualifications, as against 48% of all women with no school qualifications (Horsfield 1988:159). Human capital models, then would anticipate that an increase in women's education qualifications relative to those of men might lead to a decrease in their labour market segregation, an increase in labour market experience and thus an increase in employment opportunities, pay and conditions (Walby 1988:2). And it does seem as though women in New Zealand are taking the message seriously. Statistics show that the proportion of women with some qualifications increased from 8% in 1966 to 26% in 1986 (though the increase for men was greater from 9% in 1966 to 39% in 1986) (Department of Statistics 1990:50).8

8 Using details from the Household Labour Force Survey (HLFS) for the year ended March 1995 there are 520,000 female and 416,000 males of working age population in New Zealand and of
However, contrary to what the discourse suggests, the evidence, although incomplete, is that when women make similar choices to men in terms of investing the same amount of time and money, at even the same institution the outcomes/payoffs are likely to be quite different for all but a few in financial and career terms (Butler & Connolly 1994, Payne 1991:7, Harlan & Steinberg 1989:3, Hakim 1979, 1987). In an American study the economic life of two groups was compared, both without children by the age of 32, one group was male, the other female and it was found that although women of US class 72 made a number of investment in their own educational capital (and more than men) it had not paid off in terms of their career. The author concludes that 'evidence of women's superior educational performance and commitment is not acknowledged in terms of their labour market position' (Adelman 1991:2,18). It seems that while more education for men results in greater career opportunities this is not necessarily true for women who, despite having qualifications, get jobs well below their educational ability (Payne 1991:8). This and evidence such as the wide disparities reported in the educational backgrounds of women in most large offices, (Cross 1974:110), undermines the argument that women have lower earnings because of their insufficient investment in education and training. Indeed, it has been calculated that differences in human capital explain less than half the gap between male and female wages rates (Treisman & Hartmann 1981). Such findings have prompted an influential multi-national organisation to conclude that 'research in general, indicates that differences in education between men and women do little or only go

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9 In 7 out of 33 major occupations women achieved pay equity with men. In 5 other occupations women who took more than 8 credits in college-level maths achieved pay equity, in all other groups men were paid more than women (Adelman 1991:2,18).
part of the way to explain the earnings gap, and casts doubt on the assumptions underlying human capital theory' (OECD 1985:82). Yet, paradoxically, this very organisation is closely associated with the promotion of human capital theory as providing the basis for New Zealand’s recovery (OECD 1993) leading one to suspect firstly that the interests of women are a long way down their agenda and relatedly that this form of economic recovery is unlikely to benefit women (among other disadvantaged groups).

So, the correlation between participation in education/training, skill acquisition, increased productivity and higher earnings is not the automatic and positive one that human capital predicts (Marginson 1993, Butler 1993, Walby 1988). Even those who broadly support neo-classical economics have agreed that it is, at best, only a partial account, and that its partiality is of a socio-ideological nature:

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10 This study is primarily concerned with the ‘discourse’ of training as it affects women, but leaving the gender aspect aside for a moment there are also more general problems with the methodology of human capital economic theories, these involve the very nature of the relationships upon which it is based. The usual form of the argument is clearly encapsulated in the following statement, ‘Britain’s failure to educate and train its workforce to the same levels as its international competitors has been both a product and a cause of the nation’s poor relative economic performance: a product, because the ET system evolved to meet the needs of the world’s first industrialized economy, whose large, mass-production manufacturing sector required only a small number of skilled workers and university graduates; and a cause, because the absence of a well-educated and trained workforce has made it difficult for industry to respond to new economic conditions’ (Esland 1991:214-215, 218). But, that relationship is more complex and contentious than such statements allow. Keep & Mayhew (1991) review some of the evidence which seeks to establish the nature of the links between investment in education and training and economic performance. In examining the evidence they find that while there certainly is a causal link, training is but one of a number of contributory factors influencing economic success (Keep & Mayhew in Esland 1991:198). While there continues to be a lack of clear, empirical evidence about the exact nature of that relationship there does seem to be agreement that there is a positive correlation. Concern has been expressed, however, that an undue degree of emphasis given to the training variable might lead to other factors such as inadequate investment and poor quality products being ignored, thereby threatening economic success and, by implication, the rationale for training. Keep and Mayhew suggest that this is what happens when training policy is driven by economists influenced by neo-liberal marketplace ideologies, as has been the case in the UK for the last twenty years, and in New Zealand since the mid 1980’s. Finegold and Soskice (1991) refer to a number of studies which do find a ‘strong positive correlation between industry productivity and skill levels’ but argue that the relationship between training and economic performance is essentially a reciprocal one.
As a representation of white, middle-income persons in a democratic, industrialized, and Westernized society, it is probably a very good approximation of reality, but 'further away from these empowered, in-control Westernized individuals, the less attractive this model becomes. (Blank 1993:141)

This reservation can be considerably extended. The notion of the autonomous chooser operating in a free and fair labour market is deeply flawed according to feminist critics of rational choice economics, who variously argue that individuals do not necessarily see themselves as having choices, that a conception of rational choice relies on full and impartial information being available (which it generally is not), and that the model takes no account of pervasive cultural and socialisation processes or even hugely diverse individual circumstances and ability. For example, in an important overview of women and training in the United States, the authors concluded that young women were generally unaware of how their training choices impacted on their future status, earnings and opportunities: 'too many women do not make good initial choices about education and employment either because they have poor information or because they lack the freedom to do what is best for their long term security' (Harlan & Steinberg 1989:15). And a body of literature exists on how socialisation and cultural processes of early life and schooling affect the construction of subject identities offering females and males radically different images of themselves, which vary greatly between class and gender (Rees 1992, Middleton 1990, Deem 1985, Delamont 1980 and ethnicity, Jones 1991) In Britain, to illustrate, it has been been found that by the age of eight years girls have already made occupational choices that are both gender and class appropriate (Cockburn 1987:49-50). In a New Zealand context, Nash refers to the processes of decision making practised by young adults as 'typically embedded within the taken-for-granted framework of expectations generated by sub-cultures shaped by ethnic, class and sex-linked determinants' (Nash 1994:166).
Feminist analysis must additionally question the idea that everyone makes choices based on notions of economic self-interest and autonomy in terms of how well it fits women. In an Australian survey of single and partnered mothers who recently entered/re-entered tertiary study as mature students it was found that their intended professions were chosen because they were 'obvious', 'attractive', involved 'working with people', and the hours of work 'fitted in with other responsibilities' (Burns 1993:205). Other studies show similar findings in terms of the wide range of factors women include when making career choices (Rees 1992, Middleton 1988, Brook 1986:26). And, it is claimed, that even when women make the decision to work in paid employment many experience feelings of ambivalence about that choice because they also want to be at home bringing up their children (Park 1991:65). Women might well incorporate elements of 'human capital' logic in their decision making but as importantly their choices, even when constrained by market preferences, reflect different values and priorities. A theoretical position which builds on universal notions of self-interested individuals, whose occupational choices are made entirely based around strategies to maximise individual utility, has difficulty adequately accommodating explanations about socially-committed individuals who operate in ways which do not primarily benefit themselves. But, by privileging male occupational decisions and work patterns as the norm, women's choices, even if rational in Boudon's sense, are always going to be treated as deviant and rewarded as something less because women have been constructed as inferior workers.

A further problem is the nature of the causal relationship between the family and gender relations in paid and unpaid work which does not necessarily work in the way theorists of human capital describe. Their view that a consequence of family specialisation strategies in which women assume responsibility for childcare and household labour results in the secondary status of women in the labour market has been challenged. Instead, it is argued, that it is, in fact, women's inferior position in the labour market that results in her becoming
the family member responsible for unpaid employment in the household (see Feminist Review 1986 for a well documented coverage of the domestic labour debate, involving highly complex, theoretical arguments and counter positions concerning the primary determinant of women's oppression). But, fundamentally for human capital accounts, the idea that women choose occupations which disadvantage them less for their interrupted work patterns has been radically challenged. In claiming that the 'wage penalty' for labour force withdrawal is no greater in predominantly male occupations than predominantly female ones, the prediction of human capital theory that predominantly female occupations are those with higher rates of human capital depreciation has been seriously undermined (England 1982, Corcoran & Duncan 1979). Men leave jobs, just as women leave jobs, though for different reasons, yet men's commitment is not questioned in the same way as women's; rather their mobility is just as likely to be rewarded by promotion, new jobs, and increased wages. And, as the New Zealand Labour Force Survey (Horsfield 1988:73) makes clear, when women do withdraw from paid employment, it is not only because of family commitments but also because of the nature of their employment, which is likely to be temporary, contractual or seasonal, leading one commentator to note that 'job behaviour is as much determined by the job as the gender of the employee' (NACEW 1990:90). Furthermore, the idea that women chose low paying jobs because these fit in better with bringing up children has been disputed by Glass's research which shows that female-dominated occupations are actually less flexible, offer less breaktime and require workers to work faster and harder than male-dominated fields (Glass 1990).

The analysis so far has been concerned with factors which could be seen as mostly exogeneous/external to the labour market, but there is also a significant dimension not yet covered, one which poses a perhaps more fundamental problem for human capital theories. This encompasses Walby's important point that 'the explanation of an individual's work strategy is not the same as an explanation of the structures which contain her choices' (Walby 1986:71). By focussing
on the supply side of the equation, human capital theories presuppose a labour market which works perfectly smoothly and competitively, that all workers, providing they have the prerequisite qualities, have similar chances in the employment stakes. Thus, in purely market terms, women as the cheapest, the most adaptable and most flexible source of labour - the 'ideal' post-Fordist worker - could be expected to be the preferred source, yet they are not. Feminists, therefore, invoke the influence of other social forces - above all 'patriarchy', understood as the pattern of male dominance which sustains women's subordination to men - to explain the inequalities associated with the sexual division of labour (Walby 1988:77, Boothby 1986, Wickham 1985, Cockburn 1983). Thus, it is the patriarchal nature of the social relations between men and women in the home and the labour market which contributes to women's disadvantaged position. Historically, the actions of skilled male workers and male dominated unions in arguing for and winning the 'family wage' meant that men were paid higher wages than women as providers for the nuclear family. And the cult of domesticity supporting a particular version of family life continues, though perhaps less overtly, to influence policy and practices still, despite the changing nature of the family and the workforce (Jenson 1988:65). Ample evidence exists to show the collusion of male management and male dominated trade unions and professional groups in restricting women's access to certain occupations and their participation in the labour market more generally - access to training, criteria for entry, for promotion, internal labour market operations, access to in-service training, and so on (Kenway 1995, Doyle 1994, Nash 1994, Butler & Brown 1993, Walby 1988, O'Donnell 1984). In a very concrete example of these propositions, Cockburn's work on the printing industry in Britain identified a diverse range of overt and covert practices established to protect men's dominant position in that industry (Cockburn 1985). And, it is argued, as 'material advantages accrue to men from women's disadvantaged position' it is unlikely that men will willingly give up the practices that work in their interest (Wickham 1985:96).
The role of the state as legislator, employer and provider of services has been contradictory and particularly significant as far as women are concerned. Government legislation has both established discriminatory procedures and prohibitions regulating the terms and conditions of work for women and, as such, systematically disadvantaged their employment opportunities and yet has also promoted employment legislation designed to counter female labour market discrimination (O'Donnell & Hall 1988). And while the growth of the post-war welfare state resulting in an expansion of services and social programmes increased women's employment opportunities, its subsequent decline has entailed cutbacks to services which have resulted in not only lost job opportunities for women but has also meant that they have had to take over unpaid caring work in the home and as volunteers in the community (Jenson 1988:66). In summary then, the central point to make here is that although women may well be increasingly participating in PCET, the outcome for them, contrary to the rhetoric of the human capital inspired discourse of E21C, is unlikely to be 'success' at all. It is still the case that predominantly male careers/occupations/skills are better rewarded, and better protected, than those of women, this, along with the legacy of the cult of domesticity and the unequal impact of socio-economic change means that women simply cannot 'choose' to be in better employment situations. A wealth of feminist literature on work (some of it cited in Chapter One) testifies to this.

3. 'Skill' as contested terrain

The skills deficit model is predicated on the notion that there is a direct and unproblematic relationship between training and skilling, and that it is just a matter of 'investing' in training so as to acquire the necessary skills. The 'human capital' approach to 'manpower' training requires the education and training sectors to create /supply workers (present and future) with the relevant skills necessary for the restructured workplace. This thesis characterises workers as possessing a stock of skill and knowledge which
depreciates over time as technology develops, consequently workers have to constantly update their skill level through training. Every time a production process is introduced, the human capital of the workers concerned receive a jolt downwards which can only be remedied by constant retraining, because (t)raining is like running against the current, if you don't keep getting it, 'you are dragged down the stream' (Stern & Ritzen 1991:3). Training in this sense is about the acquisition of technical, concrete and therefore easily measured skills and derives from a positivist understanding of skill as an 'objective, one-dimensional entity', definable on 'purely technical factors' (Emery 1993:164). This perspective holds that skill is 'capable of quantitative measurement' and, therefore, the skills of people, as well as the skill content of jobs, based on relative complexity, can be assessed (ibid). Skills are thus more easily 'packaged' than knowledge and understanding, and are able to be transferred from one context to another - from school to labour market, school to polytechnic (Peters & Marshall 1996:2).

The whole concept of skill as objective, straightforward and incremental then is a crucial aspect of human capital/rational choice models that feminists and other critics would take issue with. The basic point here is that this very complex and contestable sign of human capacity - skill - becomes transformed into a taken for granted category of economic analysis and policy design, and one that is significantly 'gendered' in its implications and priorities. Empirical studies have, for example, demonstrated that definitions of a job as skilled have as much to do with the gender of the person normally associated with the job as to do with the technical competencies involved in the job itself (Coyle 1988, Dex 1985). Skill hierarchies, rather than reflecting the ability required for the job or the level of training have developed historically in the workplace through complex negotiations between employer, employee and/or their representatives (Taylor & Henry 1994:108). This is because the process of defining the skill content of jobs depends considerably on the power of each group to shape the job description and the value given to that job, thus, '(f)ar from being an objective, economic fact,
skill is often an ideological category imposed on certain types of work by virtue of the sex and power of the workers who perform it (Phillips and Taylor 1980:79). Women's workplace skills have tended to be particularly invisible or, if acknowledged, treated as an attribute of their gender and (under) valued accordingly. This means, for example, that one traditional method of training for women - 'sitting next to Nellie' - has never really been acknowledged as training nor have the skills accumulated 'informally' been recognised and rewarded in ways that skills gained by more 'formal' training methods have. Even then, the so-called 'attributes' involved are valued in a way which favours one gender over another, so that, for example, the perceived/assumed physical strength and technical skills of male workers are better rewarded than the dexterity and interpersonal skills of female workers. Definitions of skill, then, are underpinned by discourses of gender, such that much of the work that women do is classified as unskilled despite involving complex competencies, and because it is work done by women it is therefore assumed to involve 'natural' capacities requiring little training (Probert & Wilson 1993, O'Donnell 1984, Cockburn 1983, Game & Pringle 1983).

4. Summary of E21C discourse: the imperative of capitalist reorganisation?

Through this chapter and the previous one, I have been looking at the 'discourse' of the pivotal statements of training reform. Whilst acknowledging that the discourse of E21C cannot simply be reduced to ideological or economic 'externalities', I have nevertheless found it impossible to keep the state's new training discourse in any sense separate from the wider context in which it operates. It is relevant, then, at this point to (re)examine the basis for current restructuring agendas.

11 To cite Cockburn, it was found that the keyboard skills of male typesetting workers were valued more highly than the very similar keyboard skills of female clerical workers (Cockburn 1985).
The development of human capital to match that of one's competitors has been a constant theme of post-war, first world countries. In a New Zealand context poor skill development has been identified as a major problem, this, it is claimed, the consequence of low rates of participation in education and training, resulting in a workforce with inadequate formal qualifications (OECD 1993, Hawke 1988, Probine & Farghar 1987, Beattie et al 1986). In terms of national restructuring agendas much has been made of the importance of investing in education/training in order to both advance technological knowledge and capture its benefits as a way of enhancing national well-being. And, as E21C makes quite clear, this human capital investment is not just a government concern - 'success will require commitment and a substantial investment from everyone' (1994:7). Choice here is not an option but a necessity and with its emphasis on individual effort E21C nurtures the idea that 'success' is possible for everyone, and necessary for the country. E21C thus establishes a circular, reinforcing discourse, based on a human capital rationale, in which the good of the country is dependent on the efforts of its workers who will reap the benefits, but only if the country is successful.

In this scenario, restructuring becomes depicted as a 'developmental process' which can restore national economic viability through 'flexible and competitive forms of production', aided by new technologies and responsive workers (Foley 1994:127-8). The emphasis on flexible specialisation focusing on the manufacturing sector dominates this prescription and PCET is to contribute to this by developing the skill level of the workforce. The clarion call for market upskilling continues apace, with references to a profound 'skills crisis' being aimed at complacent employers as well as hidebound educationalists (Sunday Star Times 27.4.97). As far as women are concerned, at best this group would be envisaged as a source of new labour whose potential contribution has been undeveloped, but which with appropriate education and training could gain the necessary skills. Thus increased access for females is
undeveloped, but which with appropriate education and training could gain the necessary skills. Thus increased access for females is promoted primarily as a human resource issue rather than a social justice issue, and it is argued in a British context, for example, that the nation's skill requirement could more or less be met if she 'made better use of her mature women workers' (Payne 1991:2).

The counter-perspective is that the current widespread structural reformation, including the restructuring of education and the labour market, which government claims is to secure New Zealand's future, is in fact more to do with responding to one of capitalism's endemic/periodic crises, one typically characterised by low growth and falling profits (Foley 1994, Butler & Connolly 1994:43, Codd, Gordon & Harker 1988 in Wylie). In this scenario factors such as budget deficits, rising unemployment, inflation and poor trade balances are not the result of an inadequately skilled and inflexible workforce as claimed, but more to do with the chronic instability of capitalism in which Fordist-inspired economies have been subject to increasing competition within global markets from countries with cheaper labour costs (Spours & Young 1990). This, in conjunction with other elements such as de-industrialisation and the falling demand for consumer goods in first world countries, has seen a significant reorganisation of capitalism in an attempt to restore its profitability.

Foley makes the point that the response 'of all western governments has been remarkably similar: the creation of technologically advanced, low labour-cost, export oriented, internationally competitive economies' (Foley 1994:123). The impact of technological development on the labour market has resulted in the emergence of new workplace practices/organisation, and changed worker profiles (Butler & Connolly 1994, Foley 1994). Unlike the pro-tec camp, these alternative accounts characterise technological change more negatively, focussing on the elimination of jobs, deteriorating employment conditions, autocratic work practices, subjectively worsening experiences of work and worrying
environmental developments. Moreover, rather than being an inevitable process, the speed and direction of technological change is, instead, seen as bolstering certain vested interests (Burnell 1993:2). Specifically, the 'definitive features of the neoclassical paradigm are antithetical to making gender, power and social institutions central features of analysis' (Burnell 1993:172).

From this critical perspective, it is of utmost importance to spoil the image of technological change as an independent variable. Basically, to take from Gorz (quoting Marglin), technology has been 'shaped by capitalism to secure maximum control over and exploitation of labour, not to secure maximum production of goods' (Gorz 1977:143).

More particularly, technology clearly impacts on different social groups in different ways, both within the new 'high-tech' sector, and between those employed in that sector and those left to languish outside it. On the first point, even in Silicon Valley there is evidence of severe segmentation, with a primary layer of male designers, accountants and managers, and a secondary layer of women and ethnic minorities working on repetitive line work in an ironically Taylorist way (Rees 1992, Watkins 1991:198 in Dawkins). On the second point, it is now clear that not all workers can be part of the core, highly skilled workforce, and the vast majority of new jobs in the US have been in the part-time, low-wage service category (Brown 1994). In that situation, the significant changes in industrial relations practice and labour market deregulation will simply result in disadvantaged groups being further disadvantaged (Kenway 1995:7, Dawkins 1991). Moreover, it would appear to be a dangerous myth that technology creates new, skilled forms of work in sufficient quantity to replace older forms of skilled work, given the incidence of skilled workers being laid off and the level of graduate unemployment, certainly in the USA (Butler & Connole 1994:53ff, Apple 1993). It needs to be remembered also that credit inflation rather than substantive upskilling might be going on: 'a reserve army of educated labour is a good way of disciplining the graduate
workforce and reducing the labour costs of 'knowledge' workers' (Brown 1994:611).

Whilst endorsing the critical analysis of restructuring, as against the human capital model, conceiving the training revolution as capitalist reorganisation contains some dangers of 'reductionism'. The gender dimension especially cannot be completely accounted for in this way, if only because, whatever paradigm is the preferred one, technological change has and is likely to continue to have a significantly different impact on women than on men (Burnell 1993:2, Cockburn 1985). It is also important to acknowledge that capitalism has a history of responding quite flexibly to social struggles, and of conceding the advances of some groups as against others. In that context, I find it important not to see women's individual and collective pathways as being fully 'determined' in some automatic way that precludes their agency and even (partial) success. But, the issue gets a little more complicated, because once the implied force of structural constraints is relaxed, it seems a short step to rational choice ideology where all social agency is freely and knowingly enacted. What I would like to maintain is that women do indeed make their own choices, but these are in the end very severely constrained by male-defined workroles and social rewards. Women, are, if you like, forced to freely enter the career paths they do.

Drawing the threads of this discussion together, it can be suggested that the underlying logic of its economic strategy works against the government's goal of enabling all to reach their potential and take their full place in society (E21C:34), and against its goal of developing a highly skilled workforce that includes women (32). Although it is couched in terms of freedom, choice and maximising benefits for all who want to take advantage of them, the economistic discourse of E21C, based implicitly on human capital/rational choice models, is in fact a highly coercive theory and practice, particularly under New Right political values. For all the quasi-technical and quasi-egalitarian and pluralistic references,
under the appearance of equal individual opportunity, likely patterns of winners and losers can readily be ascertained. Ultimately, what is rational and optimising for capitalism in neoclassical economic perspective is not rational and optimising for all but a few of its workers, and certainly not for women as things currently stand.
1. Overview

In a conference paper on post-compulsory education and training in Australia, 'official' documents are described as 'political-economic texts that organise the social reality of those who struggle to implement policies and directives' (Butler & Connole 1994:43-44). Having established the policy framework on education and training as expressed by E21C in an earlier chapter, the focus of attention here is on the 'authoritative voice' of the Polytechnic. By focusing on Polytechnic discourse and organisation we can see something of the way that the relevant professionals have mediated the imperatives of training/PCET at state level. The particular issue for me here is that in a climate where institutional survival is a real concern, polytechnics could be inclined to translate questions of 'equity' into those of 'participation', and 'participation' can easily get assumed as
signalling 'success/achievement'. Indeed the government's own discourse appears to endorse this equation. So, if women are no longer 'under-represented' at this level of provision/study/qualification, then it could be said that they are not 'disadvantaged' at all. My response to this apparent progress would be one of caution. The overall theme of the chapter remains that of the thesis as a whole: to try to suggest that whilst themes of 'achievement/growth/efficiency' and 'equity' are easily intertwined, they can easily counteract each other, and that for women, even though participation and visibility have increased, it is not necessarily the case that equity in any meaningful sense has been achieved. The chapter develops this view by firstly illustrating and examining the key concepts featured in polytechnic documents - EEdO, access, participation, achievement, etc. - and suggesting that the twin themes of growth and achievement are probably uppermost on the agenda. Secondly, I critically analyse the 'content' of women's higher levels of participation in polytechnics, using Ministry of Education data on the spread of courses and enrolments in the sector. Thirdly, I try to gain an appreciation of the pressures facing, and viewpoints of, the professionals who work in polytechnics through a questionnaire and interview sketch of one leadership stratum at one institution. That combination of discourse analysis, quantitative data presentation and targeted questionnaire, I feel, provides quite a rounded picture of the current status of student gender equity in the polytechnic setting.

2. Situating the polytechnic sector

The antecedents of this sector have already been reviewed in a previous chapter, which noted that this section of the tertiary sector has always been more directly associated with the world of work since its inception at the beginning of the Twentieth century with the establishment of the technical day schools. Programmes at the early technical institutes, the forerunners of the polytechnics, were mostly vocational in orientation and related to the training
needs of those in the workforce, though the gradual inclusion of continuing education became a feature of provision during the 1970s. The Education Amendment Act (No 2) 1974 defined the work of the institutions as:

education, including vocational education, provided for persons who are no longer required to attend school under provisions of this Act, enrolled as pupils in any secondary school or department; but does not include education at a University or University College of Agriculture or teachers college.

(Education Act 1974:7)

The role and function of this section of the tertiary sector, however, expanded in response to changing conditions, the most significant of which was the rise in unemployment in the mid-70's. The inclusion of programmes designed for young unemployed school-leavers and adults seeking training/re-training in response to changing labour market demands thus became a noteworthy feature. An influential report on tertiary education in the late 1980s encouraged this change of emphasis, stating that:

polytechnics should have wide objectives reflecting their role as important instruments of national policy in relation to vocational education and training, labour market adjustments, social equity, issues of access and equal opportunity for lifelong learning and retraining, and the transition of young people to adult life. (Hawke 1988:12)

The Fourth Labour Government took up many of the suggestions of the Hawke Report and incorporated them into its own report jointly authored by the Prime Minister and Minister of Education (Goff and Lange 1989). Recommendations from this report formed the basis of legislation contained in the Education Act 1989 which established the structure of this section of tertiary education in its current form.

Each body, that immediately before commencement, was established as a polytechnic, institute of technology, technical
institute or community college under the Education Act 1964 was established as a polytechnic under subsection (2) of this section. (Education Act 1989: Part XIV, 162c)

The work of the polytechnic is described as,

characterised by a wide diversity of continuing education, including vocational training, that contributes to the maintenance, advancement, and dissemination of knowledge and expertise and promotes community learning, and by research, particularly applied and technological research, that aids development. (Education Act 1989: Part XIV, 162 (4b))

Compared to the earlier objectives of the Hawke Report (1988), it can be seen that there has been a shift in direction towards the more advanced end (with, for example, the inclusion of degree level programmes and the reference to a research role for the sector) and a marked narrowing of objectives, particularly relating to equity which does not get a specific mention here. The 1989 Act laid down strict guidelines and procedures for the governance of the newly homogenised sector. The Council is the supreme body, its members either appointed or elected or co-opted to serve a specific purpose. The functions of the council include the appointment of a chief executive; the preparation and negotiation of an institutional charter; the approval of statement of objectives; and ensuring that the institution and its policies are determined and managed in accordance with its charter and statement of objectives (Education Act 1989: Part XIV, 180). Duties of the Council include pursuing excellence; acknowledging the Treaty of Waitangi; ensuring the well-being of students and the institution, encouraging participation and consultation with various bodies when determining policy (ibid:182).

After the Act passed into legislation the Council of each institution was required to produce a charter in consultation with interested parties and to submit their proposals, and thereafter any amendments, to the Minister for approval. The Charter sets the goals
and objectives of the institution and these relate mostly to outcomes (impact, consequences). Whilst the terms of the charter are the Council's own, the Minister has the power to 'set out the kinds of matter in respect of which charters must specify goals and purposes', this includes both academic and management matters (Education Act 1989: Part XIV, 190). An Annual Report recording institutional performance against set goals is also a requirement. Each institution is designated a Crown entity for the purposes of the Public Finance Act 1989 and as such is required to produce a statement of objectives which specifies outputs to be achieved during the year and to report in the Statement of Service Performance on progress in meeting these under the heading of 'classes of outputs' which for polytechnics are programmes of studies (ibid:203). In the spirit of accountability the charter and annual report of an institution must be made available for inspection by any interested person.

3. Elements of polytechnic discourse

The 1989 Education Act and its subsequent amendments, E21C, the Charter, the Annual Report and the Statement of Objectives of the institutions are the main materials which serve my analysis in this phase of the chapter. It is worth outlining the discursive function of each of these components of polytechnic procedure before moving on to the substantive issues I am most concerned with.\(^1\)

\(^1\)Initially I wrote to each of the 25 polytechnics requesting copies of their Charters, Annual Reports and Statement of Objectives. This first letter produced a 70% response rate. A second request and subsequent letters resulted in a nearly complete dossier, only one polytechnic having failed to respond, though some sent only two of the three major documents I sought, and some were in the process of updating their charters (in these cases I used existing ones). At the end of this part of the exercise I had gathered in 22 Charters, 24 Annual Reports, 15 Statements of Objectives and 14 Equal Educational Opportunities Policies. See Appendix 1.

I processed this material in a three-step way, taking account of the points discussed in Chapter Two on how to treat material. Initially I read through it randomly, gaining an idea of format, style, and information, noting down questions and issues along the way. My second reading of the material was more structured, working through all the documents (with the polytechnics alphabetically listed), making detailed notes and highlighting common features and themes. The third examination involved a more evaluative approach in which my own specific concerns were brought to bear on the material in some depth. Further readings were undertaken to look for
The Charter is an agreement between the Council of the Polytechnic and the Minister of Education and identifies the values and purpose of the institution. Overall polytechnic charters follow a standard pattern with similar headings, though the ordering does vary. Most open with a mission statement and series of principles which define and describe the nature of PCET work and the policies and goals which guide it. These generally include fairly similar or identical statements on quality and equity. The next section is concerned with the distinctive character of the institution, its purpose, values and goals. The remainder of the Charter contains information about the composition of the Council, the consultation process and the formal Agreement with the Minister of Education.

Statements of Objectives are the planning tools of the polytechnic intended to establish the 'vision' and key objectives of the institutions for a three year period (and required to meet the legislative reporting requirements of Education Amendment Act 1990, State Sector Act Amendment 1989 and the Public Finance Act 1989). They are the statements of outputs the polytechnic will achieve to demonstrate its commitment to the outcomes specified in charter goals (including EEO and EEdO). Also in this document are the details of projected enrolments (EFTS)/proposed EFTS growth over the three year period. These are based on estimates of pipeline developments and local and government priority growth areas and include support statements/justification for the proposals.

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specific pieces of information, cross references etc. My presentation in this chapter is a selective treatment of the many different matters and variations contained within the polytechnic 'manifesto' documentation.

2 A typical guiding principle on equity reads - 'actively promote equity of educational opportunity for low-income groups, Maori, women, people with disabilities and special needs, people with literacy/learning needs, people requiring specific learning assistance, rural groups, Pacific Island groups, other ethnic groups specifically identified by the institution as disadvantaged and other groups identified as disadvantaged' (Aoraki Polytechnic Charter).

3 For example, the mission statement of the Hutt Valley Polytechnic (1995:2) is: to lead in the provision of vocational and community education to serve our local, regional and national communities'.
The 1989 Education Act requires Polytechnics to report on progress towards achievement of its Charter Goals and this is done in *The Annual Report*, which, therefore functions as an accounting mechanism for the polytechnic. The contents follow a fairly standard format to report on polytechnic business with most opening with the Chairperson's report, this is routinely followed by reports from the Chief Executive and the Audit Office. Statements of Service Performance follow, these are the performance indicators and measures used to judge how well the goals set by the Institution have been met and relate to institute-wide objectives. Each faculty/department reports its service performance in terms of student numbers, resources employed and cost of services. The final section generally deals with the Statements of Accounting Policies and Finances. Council and Senior Staff membership lists appear either at the front of the Annual Report or in the appendices along with items such as glossaries, notes, trends. In the final part of the report in a section relating to equal educational matters, Council has to report on the extent to which it 'eliminated unnecessary barriers to the progress of students' and 'avoided the creation' of such barriers.

In terms of their discursive organisation, the 'dash for growth' in the 1990s is perhaps the most obvious structural feature of tertiary training provision highlighted in the key polytechnic documents, following the rationale laid out in *E21C*:

Higher levels of participation in education and training are necessary because New Zealand needs a better educated labour force to achieve the Government's objectives for increasing adaptability and productivity in our economy, and higher levels of economic growth and employment. (*E21C* 1994:44)

As discussed earlier, New Zealand governments since the Sixties have stressed the need for a better educated and more highly skilled workforce to facilitate the country's success in the international marketplace. This, in turn, led to demands for higher levels of achievement and participation in education, the 1989 Education Act
furthering the quest for growth with statements exhorting the tertiary sector to 'encourage the greatest possible participation by the communities served by the institution' (Education Act 1989:Part XIV, 181a-c). This has generated both a growth in the number of institutions and a major increase in the number of students in each of the tertiary sectors.

Yet despite this significant increase in tertiary education participation rates, growth continues to remain a Government preoccupation, with Cabinet itself setting PCET participation targets on an annual basis. In the past, involvement in the PCET sector has always been voluntary with only some jobs requiring qualifications gained at tertiary level. But, as much of educational policy documentation makes clear, it is claimed that jobs requiring little or no training are fast disappearing and that the economy requires '(a) highly skilled workforce at enterprise and industry level to enhance New Zealand's international competitiveness' (E21C:32). The solution was to improve education and training levels, but the problem was twofold, i) how to increase achievement, and ii) how to increase participation in PCET without making it compulsory. This in the context of significant demographic and social changes such as the projected decrease in the number of 16-24 year olds, the increasing numbers of older people in the workforce and changing female workforce patterns. The task of maximising participation and achievement thus required a re-orientation of focus, duly provided by E21C, with the inclusion of the following as National Education Aims for the Twenty-first Century:

excellence in tertiary education, postgraduate study, and research. (E21C1994:28); and,

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5 The population of younger working ages (16-24) is projected to decrease by 12% in last decade of the century (from 503,000 in 1991 to 443,000 in 2001, but the prime age group, 25-49, and the older age group (50-64) is projected to increase substantially as the baby boom generation works its way through. NZ Statistics (1996) Labour Market 1995 Wellington: Government Printer
attainment of qualifications to enable all to participate successfully in the changing technological and economic environment. *(E21C1994:30)*

My focus here is on *polytechnic* statements that address questions of growth and achievement to see how government policy in this area is shaped by the institutional context in which it is implemented. The near-obsessive concern with participation rates at the level of the institution is reflected by its inclusion in the majority of polytechnic charters as one of their chief goals, for example,

> to encourage the greatest possible participation by the communities served by UNITEC... *(Unitec Charter 1994:2)*, and

> to enable as many people as possible to enjoy continuing education. *(Tairawhiti Charter 1991:5)*

The polytechnic sector has in many ways been very successful in terms of growth. In 1978 there were only seven regional polytechnics, but a decade later, with reorganisation, the number had grown to 22, and by 1989 there were 25 polytechnics, including the two national institutions. The number of students attending polytechnics has likewise increased significantly over the past years, such that the recent run of total student numbers looks like this:

<table>
<thead>
<tr>
<th>Year</th>
<th>Full-time</th>
<th>Part-time</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>8356</td>
<td>35194</td>
<td>43550</td>
</tr>
<tr>
<td>1990</td>
<td>18598</td>
<td>38173</td>
<td>56771</td>
</tr>
<tr>
<td>1995</td>
<td>40685</td>
<td>53701</td>
<td>94386</td>
</tr>
</tbody>
</table>

*(Source: Education Statistics of New Zealand, Research and Statistical Division)*

Polytechnics have pursued a number of strategies to strengthen growth, with goals related to extended provision of courses, and pledges to:
provide a wide variety of high quality programmes at a range of
levels, that are relevant and responsive to identified and
expressed needs. (EIT 1993:2),

offer a wide range of relevant vocational programmes which
attract a high level of enrolments from new and returning
students. (Unitec Charter 1994:7)

Other strategies for growth have included the recruitment of fee
paying overseas students; entrepreneurial activities; an emphasis on
lifelong learning; the intensified marketing of activities; the
development of educational technology to achieve alternative
delivery options; and measures to improve the retention rates of
students.

Closely bound up with growth is 'achievement'. In the opening
sentence of E21C the Minister of Education invokes other countries'
plans to 'ensure higher levels of achievement in their education
systems' (E21C 1994: Foreword). He then refers to embarking on a
similar exercise for New Zealand's education system. Achievement is
the overarching concept of E21C, used interchangeably to mean both
participation and qualification, as in the opening sentence, or used
more specifically as a term for qualification - '(a)dults seeking to
upgrade their achievements in essential skills' (1994:18). The means
by which 'achievement' is operationalised as qualification is
provided by the structure of the National Qualifications Framework.
This framework which 'will ensure that all students who meet the
required standards...can gain recognition of their achievements',
provides for the 'recognition of achievement in education and
training through the award of appropriate qualifications (1994:30).
Qualifications, then, are to be the 'reward' for participation - 'all
courses of study will lead to national qualifications' (1994:6).

While much of the focus of attention has been on existing students,
another important source of growth is signposted in the following
government aim:
To encourage the greatest possible participation by the communities served by the institution' so as to maximise the educational potential of all members of those communities with particular emphasis on those groups in those communities that are under-represented amongst the students of the institution. (Education Act 1989:Part XIV, [181](a))

It is at this point that the 'functional' imperatives of growth and achievement/efficiency become bound up with considerations about equity and the social constituencies of the polytechnics as servicing institutions. Thus, the potential student body is identified and tertiary councils are required to report on the development of programmes designed to 'attract students from groups in the community' who are 'under-represented in the student body'; or '(d)isadvantaged in terms of their ability to attend the institution' (Section 220[2A](e)). E21C reinforces this emphasis, making it clear that groups who would not normally have expected or planned to further their education have been targeted. These non-traditional tertiary groups include Maori and Pacific Island students (1994:28), older age groups seen to require upskilling as their numbers increase (28), groups in the community under-represented in each tertiary institution's body, or 'disadvantaged in terms of their ability to attend the institution' (35), students with special needs (36) and women (33-34). The unemployed are about the only group not specifically mentioned though, of course, they exist in each of the categories.

Perhaps the central category through which initiatives to improve growth and achievement and counter 'disadvantage' are channelled is 'equal educational opportunity' (EEdO). It is worth restating here that one of the ten aims of E21C itself specifically promotes 'equality of educational opportunity for all to reach their potential and take their full place in society' and cites as a desirable outcome 'an education system in which no group experiences unfair outcomes in terms of participation or success' (E21C::34). The polytechnics of
course have to address equity matters in more than 'educational' ways - as managers of staff, for example, they must fulfill EEO obligations. In terms of students and training pathways, however, it is equity/EEdO that is crucial, and the relevant Charter goals in this regard are given as Appendix 2. Overall, at least half the polytechnics include EEdO in their Charter as an explicitly highlighted goal, though there is interesting variety in the way EEdO is formulated, sometimes being signalled in terms of 'equity' (Aoraki, Manawatu, Wairariki), the absence of discrimination (Otago), the support and encouragement of all people (Tairawhiti), and the promotion of non-sexist, non-racist curriculum (Manukau). For some, there is a commitment to 'demonstrating' EEdO (Wairiki), for others the idea is to 'promote' it (Whitiriea), whilst others again seek to 'foster' it (EIT), or 'strive' for it (Nelson). In some places, it is equitable access that is enshrined as a goal (CIT, Taranaki), whilst others talk in terms of equal outcomes or success (Manukau, Christchurch, Unitec). Women's/gender disadvantage is specifically mentioned only by four polytechnics, and in none uniquely, instead more embracing references to under-represented and/or disadvantaged groups are made. Occasionally Treaty of Waitangi obligations are singled out as exemplary (Auckland, Telford, Open), and in one case the Human Rights Act is the basis of equity policies (Southland). Dis/ability equity issues are distinctly underlined by one institution (Wairiki). At least two polytechnics opt for a more committed public stance and refer to active commitment/affirmative action (Manukau, Wanganui).

Access is signalled as one of the major goals for facilitating participation and its promotion is a common theme running through the documents of the polytechnics. For example:

- ensure accessible, innovative and client-responsive teaching, learning research (Christchurch);

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6 It is worth re-stating that the situation regarding EEdO goals, objectives and policies is not a static one, that polytechnics are continually revisiting these areas.
-facilitate ACCESS to the Polytechnic's programme by minimising educational, physical, locational and financial obstacles to learning (Waikato);

-promote access to advanced technological, professional and vocational education and training for those who are educationally disadvantaged (CIT).

Access in this context is about entry to educational and vocational programmes and the obstacles to access are variously identified as physical, locational, financial, educational and time-related. Furthermore, in the polytechnics, as in E21C itself, there is a consistent though vague link between access and equity, such that 'barriers to access, learning and achievement need to be removed to assure equitable educational outcomes for all New Zealanders' (1994:24). Sometimes this link is stated as a fairly general commitment, for instance, 'committed to equity of access and opportunity' (Tairawhiti Charter 1991:4), whilst others provide more assertive statements such as 'promoting equity and fairness ... along with access to and control of information, skills and resources people need to gain control of their lives' (Wanganui Charter 1991:15), or again, 'providing significant learning, power-sharing and success for those who have lacked such opportunities' (Whitireia Charter 1991:7).

In many ways, it is very encouraging and progressive to have major educational institutions closely interweaving issues of social disadvantage and equity with the more 'functional' requirements of a training structure. My reservations are not intended to simply 'cancel out' such genuine good motives as exist. However, there is a 'seamless' logic to the whole project of E21C and its implementation in the polytechnics which needs to be 'disrupted' in various ways, especially as regards the real prospects for women under this system. The rationale for such a critique is as follows.

1. The starting point, and main problem, seems to be the need to upskill the workforce in the face of a modern - internationalised -
economic and labour market environment. (Questionable assumption: that the concept is gender neutral, that we know what 'skill' is, and how it can be best rewarded in labour market terms and that it will lead to economic success.)

2. Upskilling is to occur through greater achievement by getting more people in, and through a cumulative and seamless education/training system. (Questionable assumption: that that system enhances skill levels and does not merely credentialise existing skills levels.)

3. Greater achievement requires greater participation within educational/training institutions. (Questionable assumption: that higher enrolments/attendance signals a more meaningful participation/educative process.)

4. Greater achievement is measured by more qualifications; and participation in and of itself leads to the earning of qualifications/credentials. (Questionable assumptions: that 'participation' itself involves deep learning, and that credentialisation necessarily indicates a better educated, more skilled populace).

5. Greater participation requires better access policies and practices. (Questionable assumption: that flexible entry alone will get those in who need to come in.)

6. Intentions on access, participation, qualification and achievement can be expressed through, and galvanized by an equal educational opportunities ethic and policy. (Questionable assumption: that EEdO guidelines will automatically lead to greater participation and achievement, and that this will automatically signal greater equity of recognition, condition, skills, and outcomes).

Just as I attempted to show in the case of E21C itself, then, the 'official discourse' of polytechnics is highly questionable. It is
almost as if the very mention of social goals and equity horizons is sufficient to achieve these. But in fact, the understandings of such concepts as EEdO is rather shallow from a critical standpoint.

4. Counting Heads: Targets and Patterns of Women's Participation

The Charter is the shop-window for polytechnics, and therefore the place where we can perhaps expect the most free-flowing rhetoric about equity. Annual Reports, on the other hand, are where statements about the effectiveness of the institution are made, in particular through the Statement of Objectives and Service Performance appraisal. In terms of equity/EEdO reporting, seven of the polytechnic annual reports, (see Appendix 3 for full summary), have as a goal that women constitute a certain percentage (usually around 50%) of the student population (Auckland, Northland, The Open, Tai Poutini, Telford, Unitec, Whitreia). A further six, however, have no mention of women as a group at all. A number of polytechnics refer to the provision of, or improvement to, support services for students such as creche facilities, subsidised transport (Hutt Valley, Tai Poutini, Telford, Northland). Among other EEdO measures reported are the provision of special programmes or additional classes for women (Bay of Plenty, Hutt Valley), the recognition of prior learning (Christchurch), staff awareness programmes (Otago, Hutt Valley), enrolment of women into non-traditional programmes (Manawatu), monitoring policies (Wairarapa, Otago). Finally, three polytechnics have no mention of EEdO in their annual reports (Taiawhiti, Nelson, Taranaki), though they do have EEdO policies and quite extensive ones in the case of Nelson Polytechnic.

Triennium Statements of Objectives (SoO)\(^7\) are part of the planning process for polytechnics, setting out in greater detail their

\(^7\)All Statements of Objectives are for a three year period, the ones referred to here relate to the latter half of the 1990's.
objectives and targets in relation to the scope of educational delivery, and quality and effective resource management. These documents are more commercially sensitive in their scope in that they establish the future direction and enrolment targets for programmes. Many of the SoO are of much the same order as the Charter, with commitment to gender equity being expressed at a very general level. Thus, Tairawhiti refers vaguely to providing opportunities for non-traditional students' and Telford to providing learning opportunities that encourage spiritual, physical and cultural well-being. A number of polytechnics emphasise equality of access to programmes for the disadvantaged but do not set targets (CIT, Nelson, Bay of Plenty). Likewise, Taranaki, Wanganui and Waiairiki indicate the desirability of developing definite targets, but do not give in fact any figures. Southland Polytechnic mentions 'a number of activities to encourage women into new areas of tertiary education', but no figures are entered in its 'corporate and faculties performance targets' heading. Several polytechnics do give specific targets. EIT pledges itself to increasing for 1996 the actual number of Maori, people with disabilities, and rural women enrolled in 1995. Christchurch sets the objective of ensuring 50% female EFTS. Whitireia is less mechanical than this, suggesting that participation of previously under-represented groups, including women, should reflect their distribution in the community generally, thus anticipating at least 51% female students. Moreover, that polytechnic shows some sophistication in acknowledging that not only enrolment rates need to be monitored, but completion and success rates for targetted groups have to be ensured. Auckland and Northland have similar statements about 50+%' participation and faculty-specific rates of achievement to be attained. Unitec shows an unusual awareness that the global figure of participation and the skill areas in which women participate might be two separate issues as far as equity is concerned. Thus, Unitec sees the need to increase female enrolment by more than the 1995 10% figure in areas of study not traditionally associated with women's interests, and they mention too the need for encouraging men to get involved in non-traditional areas for them. Finally, Tai Poutini also specifies a
determined 1997 target on gender, but perhaps more importantly, signals the need to 'promote gender balance in academic programmes'. From this summary it can be seen that EEdO gender is not exactly a dynamic issue and it might well be that the tension between achieving efficiency and equity is becoming too problematic. Indeed, there is some sense of this in Christchurch Polytechnic's statement that their predisposition to achieving equal opportunities for women continues 'despite significant tension with the need for economic viability and the spectre of government funding attrition' (Christchurch Polytechnic, Statement of Objectives 1997-1999:22). 

This last angle of analysis - the importance of the subject area of courses for women rather than their overall participation rates - is the one I want to place major emphasis upon now. For there is no doubt that if participation alone is our criterion for equity, then arguably women no longer have to be singled out as under-represented or disadvantaged at all, and, indeed, men are becoming the focus of attention as an under-represented group. But, as my historical and theoretical account of the overall issues of women in the labour market suggested, feminist understandings of equity cannot be merely quantitative. Rather, it is the substantive aspect of participation in training that is crucial: the skill and work roles that women are involved in, and whether those roles essentially reproduce or challenge the traditional dominance and privilege of male occupations in our society.

My examination of Ministry of Education statistics reveals a general lack of challenge to stereotypical gender workroles and opportunities. Database information for 1995 obtained for the purposes of this analysis was organised under the following cross-
headings: Institution; Name of Polytechnic; Field of Study (FoS); Sub Field of Study (sFoS); Award; Programme Category; ISCED Level; Number of Weeks Duration; Full-time Male; Full-time Female; Part-time Male; Part-time Female. This material was then re-collated by level, so that all polytechnic programmes could be viewed under the field of study heading and level, where Level 3 = Certificate, Level 4 = Pre-employment, Level 5 = Diploma, Level 6 = Degree, Level 7 = Post-graduate, Level 8 = In-service & Refresher. What follows is a selection of information, designed to give a reasonable general picture of the pattern of polytechnic enrolments, but also of course designed to highlight the relevant aspects of my more general discussion on the numbers of female enrolments, their qualification level and substantive training profile.

<table>
<thead>
<tr>
<th></th>
<th>Full-Time</th>
<th>Part-Time</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>30252</td>
<td>41698</td>
<td>71950</td>
</tr>
<tr>
<td>Male</td>
<td>27076</td>
<td>44077</td>
<td>71153</td>
</tr>
<tr>
<td>Total</td>
<td>57328</td>
<td>85775</td>
<td>143103</td>
</tr>
</tbody>
</table>

Table 1: Polytechnic enrolments (ISCED levels 3-8), by Gender and Nature of Attendance.

Table 1 shows that there are more part-time enrolments than full-time in the polytechnic sector, confirming its importance as a major provider of part-time courses. Enrolment numbers at levels 3-8 for full-time study are 57328 and for part-time study 85775. Male part-time enrolments (44077 ptme) outnumber female enrolments (41698 ptfe) in this educational sector, unlike others where more women than men study part-time and/or extramurally, probably suggesting

10 ISCED stands for International Standard Classification for Education and was developed by UNESCO to facilitate the comparison of educational statistics produced by different countries. This classification system is meant to be broadly compatible with the qualifications Framework produced by NZQA.

11 fte = full-time enrolments, ftfe= full-time female enrolment, ftme= full-time male enrolment; ptfe= part-time female enrolment, ptme= part-time male enrolment; pts= part-time student. The first figure given in ratios etc refers to female enrolments.

12 This was also the case ten years earlier, see Horsfield 1988:166-167
that more male students are studying while in paid employment. Full-time female enrolments at 30252 outnumber full-time male enrolments at 27076. Female full-time and part-time enrolments are greater than male full- and part-time enrolments in 14 of the 22 fields of study. Clearly, there is no major problem of women's participation as such.

<table>
<thead>
<tr>
<th>ISCED Level</th>
<th>Full-Time</th>
<th>Part-Time</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 3</td>
<td>21655</td>
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<td>30703</td>
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</tr>
<tr>
<td>Level 8</td>
<td>1365</td>
<td>2712</td>
<td>4077</td>
</tr>
<tr>
<td>Totals</td>
<td>57328</td>
<td>85775</td>
<td>143103</td>
</tr>
</tbody>
</table>

Table 2: Polytechnic enrolments by ISCED levels 3-8 and Nature of Attendance.

Table 2 contains information on enrolments in programmes of study at each of the ISCED levels 3 - 8. The most popular qualifications overall are at level 3, with a total of 64167 enrolments. The next most numerous is level 5, with 50079 part- and full-time enrolments, followed by level 6 with 13193 enrolments overall. Part-time numbers at level 3 are almost double those of full-time enrolments at the same level (42512 pte, 21655 fte), and likewise part-time enrolments at level 5 form the majority (30703 pte, 19376 fte). At degree level the situation is reversed with full-time enrolments being almost twice that of part-time (4802 pte, 8391 fte).
Table 3: Polytechnic enrolments by ISCED levels, Gender and Nature of Attendance.

<table>
<thead>
<tr>
<th>ISCED Level</th>
<th>Full-Time</th>
<th></th>
<th>Part-Time</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fem.</td>
<td>Male</td>
<td>Fem.</td>
<td>Male</td>
<td>Fem.</td>
</tr>
<tr>
<td>Level 3</td>
<td>11910</td>
<td>9745</td>
<td>19813</td>
<td>22699</td>
<td>31723</td>
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<tr>
<td>Level 4</td>
<td>2753</td>
<td>3755</td>
<td>2639</td>
<td>2256</td>
<td>5392</td>
</tr>
<tr>
<td>Level 5</td>
<td>9498</td>
<td>9878</td>
<td>14334</td>
<td>16369</td>
<td>23832</td>
</tr>
<tr>
<td>Level 6</td>
<td>5597</td>
<td>2794</td>
<td>3324</td>
<td>1478</td>
<td>8921</td>
</tr>
<tr>
<td>Level 7</td>
<td>27</td>
<td>6</td>
<td>70</td>
<td>81</td>
<td>97</td>
</tr>
<tr>
<td>Level 8</td>
<td>467</td>
<td>898</td>
<td>1518</td>
<td>1194</td>
<td>1985</td>
</tr>
<tr>
<td>Totals</td>
<td>30252</td>
<td>27076</td>
<td>41698</td>
<td>44077</td>
<td>71950</td>
</tr>
</tbody>
</table>

Table 3 shows the gender breakdown of different ISCED levels for full and part-time enrolments. From this it can be seen that at certificate level (3) females in full-time study outnumber males, but this is not so for part-time study, the beginning level for apprenticeships, the majority of which are usually undertaken by males. At diploma level (5) there are more male enrolments in both full- and part-time study. But at degree and postgraduate levels, female enrolments again exceed male enrolments for both full- and part-time study, indicating that trade qualifications (which are located in level 5) represent the preponderant qualification for male students. At pre-employment level (4), and inservice/refresher level (8), male full-time enrolments are higher than female full-time enrolments, but there are more female part-timers than males. Overall, then, full- and part-time male enrolments are greater at ISCED levels 3, 4, 5 and 8, while full and part-time female

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13 An apprentice usually receives two to four hours of evening instruction weekly at a polytechnic as well as block courses which vary in length from three to eighteen weeks per year (Education Statistics of New Zealand 1991:13).
enrolments are greater at (the less populous and more 'academic') levels 6 and 7.

<table>
<thead>
<tr>
<th>Field of Study</th>
<th>F-T, M&amp;F</th>
<th>P-T, M&amp;F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>01. General Programmes</td>
<td>166</td>
<td>1000</td>
<td>1166</td>
</tr>
<tr>
<td>08. Literacy</td>
<td>1470</td>
<td>1465</td>
<td>2935</td>
</tr>
<tr>
<td>14. Education</td>
<td>1006</td>
<td>1839</td>
<td>2845</td>
</tr>
<tr>
<td>18. Art, Music &amp; Handicrafts</td>
<td>4753</td>
<td>384</td>
<td>5137</td>
</tr>
<tr>
<td>22. Humanities</td>
<td>1568</td>
<td>982</td>
<td>2550</td>
</tr>
<tr>
<td>30. Social &amp; Comunication Skills</td>
<td>3179</td>
<td>8069</td>
<td>11248</td>
</tr>
<tr>
<td>34. Commercial &amp; Business</td>
<td>14273</td>
<td>32562</td>
<td>46835</td>
</tr>
<tr>
<td>38. Law</td>
<td>30</td>
<td>1041</td>
<td>1071</td>
</tr>
<tr>
<td>42. Natural and Applied Sciences</td>
<td>1355</td>
<td>1379</td>
<td>2734</td>
</tr>
<tr>
<td>46. Mathematics</td>
<td>16</td>
<td>445</td>
<td>461</td>
</tr>
<tr>
<td>48. Computing</td>
<td>1465</td>
<td>1964</td>
<td>3429</td>
</tr>
<tr>
<td>50. Medical &amp; Health</td>
<td>6349</td>
<td>3273</td>
<td>9622</td>
</tr>
<tr>
<td>52. Industrial Trades &amp; Crafts</td>
<td>6307</td>
<td>14662</td>
<td>20969</td>
</tr>
<tr>
<td>54. Engineering</td>
<td>3360</td>
<td>4456</td>
<td>7816</td>
</tr>
<tr>
<td>58. Architectural &amp; Town Planning</td>
<td>1105</td>
<td>970</td>
<td>2075</td>
</tr>
<tr>
<td>62. Agric,Hort,Forestry &amp; Fishing</td>
<td>1891</td>
<td>3831</td>
<td>5722</td>
</tr>
<tr>
<td>70. Transport &amp; Communication</td>
<td>265</td>
<td>1085</td>
<td>1350</td>
</tr>
<tr>
<td>78. Service Trades</td>
<td>5919</td>
<td>5191</td>
<td>11110</td>
</tr>
<tr>
<td>84. Mass Communication</td>
<td>834</td>
<td>347</td>
<td>1181</td>
</tr>
<tr>
<td>90. Sport &amp; Recreation</td>
<td>1173</td>
<td>626</td>
<td>1799</td>
</tr>
<tr>
<td>92. General Foundation Programmes</td>
<td>661</td>
<td>147</td>
<td>808</td>
</tr>
<tr>
<td>98. Other Programmes n.e.c.</td>
<td>183</td>
<td>57</td>
<td>240</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>57328</strong></td>
<td><strong>85775</strong></td>
<td><strong>143103</strong></td>
</tr>
</tbody>
</table>

Table 4: Enrolments by Field of Study and Nature of Attendance
The fourth table in this series illustrates subject area concentrations, showing the breakdown of enrolments in the twenty-two fields of study. It can be seen that the commercial and business area with a combined part- and full-time total of 46835 gained the most enrolments, the second most popular being the industrial trades and crafts field (20969 total roll). Third was social and communication skills at 11248 enrolments, closely followed by the service trades subjects (11110). The same hierarchy emerges for part-time enrolments: commercial and business (32562 pte); industrial trades and crafts (14662 pte); social and communication skills (8069 pte); service trades (5191 pte). However, for full-time enrolments taken separately, while the commercial and business area (14272 fte) is way ahead, the medical and health subjects (6349 fte) are the second favourite, closely followed by industrial trades and crafts area (6307 fte), then the service trades (5919 fte).

<table>
<thead>
<tr>
<th>Field of Study</th>
<th>Full-Time Fem.</th>
<th>Male</th>
<th>Part-Time Fem.</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>01. General Programmes</td>
<td>106</td>
<td>60</td>
<td>630</td>
<td>370</td>
<td>1166</td>
</tr>
<tr>
<td>08. Literacy</td>
<td>781</td>
<td>689</td>
<td>912</td>
<td>553</td>
<td>2935</td>
</tr>
<tr>
<td>14. Education</td>
<td>712</td>
<td>294</td>
<td>1257</td>
<td>582</td>
<td>2845</td>
</tr>
<tr>
<td>18. Art, Music &amp; Handicrafts</td>
<td>2537</td>
<td>2216</td>
<td>251</td>
<td>133</td>
<td>5137</td>
</tr>
<tr>
<td>22. Humanities</td>
<td>924</td>
<td>644</td>
<td>622</td>
<td>360</td>
<td>2550</td>
</tr>
<tr>
<td>30. Social &amp; Communication Skills</td>
<td>2356</td>
<td>823</td>
<td>5796</td>
<td>2273</td>
<td>11248</td>
</tr>
<tr>
<td>34. Commercial &amp; Business</td>
<td>8573</td>
<td>5700</td>
<td>18433</td>
<td>14129</td>
<td>46835</td>
</tr>
<tr>
<td>38. Law</td>
<td>21</td>
<td>9</td>
<td>883</td>
<td>158</td>
<td>1071</td>
</tr>
<tr>
<td>42. Natural and Applied Sciences</td>
<td>738</td>
<td>617</td>
<td>877</td>
<td>502</td>
<td>2734</td>
</tr>
<tr>
<td>46. Mathematics</td>
<td>7</td>
<td>9</td>
<td>163</td>
<td>282</td>
<td>461</td>
</tr>
<tr>
<td>48. Computing</td>
<td>591</td>
<td>874</td>
<td>1097</td>
<td>867</td>
<td>3429</td>
</tr>
<tr>
<td>50. Medical &amp; Health</td>
<td>5552</td>
<td>797</td>
<td>2840</td>
<td>433</td>
<td>9622</td>
</tr>
<tr>
<td>52. Industrial Trades &amp; Crafts</td>
<td>1096</td>
<td>5211</td>
<td>1906</td>
<td>12756</td>
<td>20969</td>
</tr>
<tr>
<td>54. Engineering</td>
<td>224</td>
<td>3136</td>
<td>365</td>
<td>4091</td>
<td>7816</td>
</tr>
</tbody>
</table>
Table 5: Enrolments by Field of Study, Gender and Nature of Attendance

Table 5 shows the gender breakdown of full-time and part-time enrolments in all fields of study. From this it can be seen that the most popular full-time fields of study for females were first - business and commercial; second - medical and health; third - service trades and fourth - art, music and handicrafts. Male full-time enrolments were concentrated in, first - commercial and business; second - industrial trades and crafts; third - engineering; and fourth - art, music and handicrafts. For female part-time enrolments, the preference runs: commercial and business, social and communication skills, service trades, and medical and health. Male part time enrolments were most numerous in commercial and business, followed by industrial trades and crafts, engineering, and agriculture, horticulture, forestry and fishing.
Table 6: Polytechnic enrolments in most popular Fields of Study by Gender and Nature of Attendance.

Table 6 reveals the dominance of the commercial and business area. This is the first enrolment choice of females and males for both part-time and full-time study, accounting for approximately one-quarter of all full-time enrolments and over one-third of all part-time enrolments (at levels 3-8). This field of study accounts for just under one quarter of all female full-time enrolments in levels 3-8. Overall, there are more enrolments by female students in this field of study than enrolments by male students, though the ratios are not particularly uneven, as compared to other fields, at 3:2 for full-time enrolments and 4:3 for part-time enrolments (female:male). While there is an almost equal ratio of degree level full-time enrolments (716 fte, 718 fme), part-time enrolments by women outnumber men 4:3 (1256 pte, 955 pme). There is a clear  

14 The field of study Commercial & Business Skills has twelve subfields: Accountancy/Economics; Business Administration/Management/Marketing and Sales; Business Computing/Information Systems; Clerical or Office Systems; Educational Management; Financial Management/Investment Analysis; General Business and Administration, General Commercial and Administration Programmes, Receptionist; Secretarial Programmes; Shorthand, Typing, Word Processing; Typing, Wordprocessing/Keyboard Skills.
gender distinction between full-time enrolments at diploma level and certificate level with the majority of female enrolments located at level 3 and male enrolments at level 5 (diploma level: 3071 ftfe, 3228 ftme; certificate level: 4385 ftfe, 1478 ftme). However, female part-time enrolments dominate at both levels 3 and 5 (level 5: 10438 ptfe, 8699 ptme; level 3: 6655 ptfe, 4362 ptme).

At degree level the chosen sub-field of study for both female and male students at full-time and part-time is General Business and Administration, and the majority of enrolments at level 6 are in this programme. Accountancy/Economics is the second enrolment choice of all degree level students with more males enrolments at full-time and more female enrolments at part-time (171 ftfe, 214 ftme; 268 ptfe, 163 ptme). The third choice of both female and male students is the subfield of Business Administration, Management, Marketing and Sales (83 ftfe, 86 ftme, 51 ptfe, 100 ptme).

And, likewise, at diploma level the largest number of full-time, female and male and part-time female enrolments is also in the General Business and Administration subfield of study (1763 ftfe, 1509 ftme, 5690 ptfe). Business Administration, Management, Marketing and Sales comes second for full and part-time females (587 ftfe, 3738 ptfe), though it is the first choice for part-time males (4171 ptme). The subfield of business computing and information systems is the second enrolment choice of full-time males and the third enrolment choice of full-time females and part-time males. The subfield areas of secretarial and clerical/office systems/educational management are both very small and female dominated.

At certificate level, female full-time enrolments dominate in the clerical/office system subfield, the ratio here being a significant 15:1 (2219 ftfe, 152 ftme). The first choice for male full-timers and the second choice of female full-time enrolments is business computing/information systems (630 ftfe, 549 ftme). The third enrolment choice of female full-timers is the secretarial
programmes subfield and they outnumber male full-time students at the ratio 8:1 (603 ftfe, 71 ftme). The third choice for male full-timers and the fifth choice of female full-time students is general commercial and administration programmes (195 ftfe, 162 ftme). The largest discrepancy between female and male enrolments is in the receptionist subfield where female enrolments outnumber male enrolments 22:1 for full-time courses, and 21:1 for part-time study (133 ftfe, 6 ftme; 24 ptfe, 2 ptme).

Subfields with more evenly balanced enrolment gender ratios at different levels are business administration, business computing, finance management, general commercial and administration.

Not unexpectedly, the Industrial Trades and Craft field is largely a male preserve, with most of the full- and part-time enrolments at certificate and pre-employment level, and many of part-time students at diploma level being male. Female enrolments surprisingly make up the majority at full-time diploma level, but these are heavily concentrated in the full-time diploma clothing and related trades programmes. Without their representation in this (traditionally female) subfield, the full-time diploma area would also be heavily male. Women form the bulk of full-time enrolments in the Clothing and related trades area and the Textile area at levels 3, 4, and 5. They are also the majority of part-time enrolments in the Food Processing area at levels 3, 5 and full-time at level 5. Other than these three areas, men dominate the rest, with the exception of Graphic Arts & Printing where there is a more even balance. The majority of part-time enrolments are female, with full-time enrolments at levels 4 and 5 showing a preponderance of males (there are no diploma level programmes in this subfield).

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15There are 21 subfields of study within this field: Building Trades; Clothing & Related Trades; Electrical & Electronic Trades; Food Processing; General Trades Programmes; Graphic Arts & Printing; Heating, Airconditioning & Refrigeration; Industrial Design; Laboratory; Leather; Marine/BoatBuilding; Mechanical, & Mechanical Repair Trades; Metal Trades; Painting & Decorating; Panel Repair/Coach Building; Plastics/Glass Trade; Plumbing, Gasfitting, Drainlaying; Production Process; Textile; Watchmaking/Manufacturing Jewellery; Woodworking Trades.
There are certain subfields in which women have either no presence or a miniscule one. At diploma level this is the case for the panel repair and coachbuilding trades, the plumbing, gasfitting and drainlaying trades and the heating, airconditioning and refrigeration trades. At certificate level it is the case for plastic and glass trades, the woodworking trades, the leather trades, as well as the plumbing, gasfitting, drainlaying trades and the panel repair and coach building trades.

Even in trades subfields where female students are present, their numbers are very small as the following illustration makes clear. At diploma level in the building trades the ratio of female to male enrolments is 1:8 full-time and 1:10 part-time (21 ftfe, 164 ftme; 39 ptfe, 391 ptme), in the mechanical and mechanical repair trades the ratio is 1:10 for full-time enrolments and 1:70 for part-time enrolments (4 ftfe, 42 ftme, 5 ptfe, 341 ptme); in the electrical and electronic trades it is 1:17 for full-time enrolments and 1:54 for part-time enrolments (2 ftfe, 34 ftme, 6 ptfe, 322 ptme). At certificate level the ratios are similarly heavily against females, such that in the building trades it is 1:70 (ftfe:ftme), 1:86 (ptfe:ptme), in the metal trades it is 1:30 (ftfe:ftme), 1:60 (ptfe:ptme), in plumbing, gasfitting and drainlaying trades it is 1:50 (ftfe:ftme), 1:200 (ptfe:ptme), in the plastic and glass trades it is 1:35 (ptfe:ptme), in the panel repair and coachbuilding trades it is 1:16 (ftfe:ftme), and 1:45 (ptfe:ptme), and in the mechanical and mechanical repair trades it is 1:19 (ftfe:ftme), and 1:32 (ptfe:ptme).  

In the field of Social and Communication Skills, at degree level the ratio of female to male full-time enrolments is slightly over 3:1 (157 ftf, 48 ftm), while for those studying part-time the

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16 There were no programmes at degree and postgraduate level for 1995.
17 Under this field there are ten subfields of study - Caring Programmes, Communication Skills, Community Social Services, Counselling, General Social Science Programmes, Life Skills, Maori Culture, Psychology, Social Work, Sociology, though not all are included at each level.
ratio is 4:1 (242 ptf, 64 ptm). Similarly, at diploma level, the ratio of female to male is approximately 3:1 (395 ftf, 130 ftm) for full-time enrolments, and 4:1 for part-time (495 ptf, 119 ptm). For certificates, the ratio of full-time female to male is just over 3:1 (1472 ftf, 461 ftm), and part-time female to male is approximately 5:2 (4726 ptf, 1969 ptm).

The difference in the ratio between the part-time degree/diploma level and certificate level is the inclusion of life skills at level 3. This area is one in which the gender imbalance is less pronounced between part-time students (1656 ptf:1578 ptm), possibly because this area is considered a core one for many government-sponsored training schemes. When the life skills sFoS is excluded, however, the ratio between ptf and ptm enrolment at certificate level becomes a significant 7:1. One of the major factors in this heavily uneven gender distribution of students is the sFoS 'Caring Programmes'. Here, female enrolments overwhelmingly dominate, the ratio for diploma level full-time students being about 50:1, part-time 9:1. At certificate level the full-time ratio is around 11:1 (583 ftf, 49 ftm), part-timers 30:1 (2083 ptf, 65 ptm). At degree level, the Sociology Bachelors degree is a mainly female area (40 ftf, 11 ftm; 84 ptf, 14 ptm), as is the Social Work degree (51 ftf, 11 ftm; 34 ptf, 5 ptm). In the subject areas that are more evenly balanced, such as Counselling and Maori Culture, there are still approximately two female enrolments for every one male.

The Service Trades field of study has the third highest female full- and part-time enrolments overall, and within it, female enrolments are greater than male enrolments at all levels, part- and full-time. The hotel and restaurant trades/cooking subfield has the greatest number, with female full-time enrolments outnumbering male full-time enrolments, though not part-time. The tourism and hospitality trades area is the second largest subfield, and again

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18 Comprising: Embalming, Funeral Director; Hairdressing and Beauty Trades; Hotel and Restaurants Trades/Cooking; Retailing Trades/Sales Skills; Tourism and Hospitality Trades; Tourism (travel).
female exceeding male enrolment, full- and part-time. The retailing trades and sales skills area is the only one to have more full- and part-time male enrolments than female. The ratio is a significant 9:1 for full-time enrolments and 11:1 for part-time enrolments in the hairdressing and beauty trades area (359 ftfe, 42 ftme, 992 ptfe, 88 ptme). By far the bulk are at level 3 here, with female full-time enrolments of 2764, and male full-time enrolments at 1509, and part-time enrolments standing at 3088:1791. This compares with female, full-time enrolments at level 5 of 463 and male full-time enrolments of 287 and part-time enrolments of 112 for females and 87 for males.

The Medical and Health field of study not only has the second highest number of enrolments overall, but also the second highest female full-time enrolments. These outnumber male enrolments at all levels of full-time and part-time study, with the exception of level 7 (postgraduate) where female and male part-time enrolments are about equal. Women predominate in all but two subfields of study: public health and environmental health, in which male enrolments are greater than female enrolments, full-time and part-time; and medicine and surgery (post-service), where there are more part-time male enrolments than female. Midwifery is the only area in which there are no male full or part-time enrolments, though there are a number of other subfields with high proportions of female enrolments - occupational therapy, general nursing, other nursing programmes, introductory health programmes and paramedical/pharmacy assistants. Subjects such as physiotherapy and radiography attract a more balanced gender ratio. For example, at level 6 the ratio for physiotherapy is approximately 2:1 female to male (346 ftfe, 139 ftme; 67 ptfe, 32 ptme) and for radiography at level 5 it is approximately 3:1 for full-time enrolments (151 ftfe, 57 ftme).

19 Containing subfields of Dental Therapy/Assistant; General Nursing; Health Care Assistants; Introductory Health Programmes; Medical Technology; Medicine & Surgery (post-service); Midwifery; Natural Health/Healing; Occupational Therapy; Other Nursing Programmes; Paramedical; Pharmacy Assistant; Physiotherapy; Podiatry; Public Health and Environmental Health; Radiography.
An examination of the data for the Engineering field of study reveals this area to be one in which male enrolments heavily outnumber female enrolments in all areas at all levels. Overall, the ratio of female full-time enrolments to male full-time enrolments is 1:14 (224 ftf, 3136 ftm), and the ratio for part-time female enrolments is 1:11 (365 ptf, 4071 ptm). There are no courses in which females figure as a majority, or even equivalently with male enrolments. At degree level the ratio of ftf enrolments to ftm enrolments is 1:16 (there are no part-time female enrolments). At diploma level the ratio of ftf to ftm enrolment is 1:14, for ptf to ptm enrolments it is 1:12. At certificate level the ratios are 1:15 for ftf to ftm enrolments, and 1:7 for female to male part-time enrolments.

There are polytechnic technology programmes at level 3 (certificate), level 5 (diploma) and level 6 (degree). Even though female enrolment in these programmes barely registers, the gender imbalance is noteworthy with a ratio of 1:77 full-time female to full-time male enrolment at certificate level, 1:10 at diploma level and 1:16 at Bachelors level. (Part-time study is almost non-existent). And there are other subfields with equally disproportionate gender enrolments, for example, Mechanical Engineering in which for every female enrolment at full- and part-time diploma level there are 27 male enrolments, and at levels 3 and 4 there are nearly 50 male enrolments in full-time courses for every 1 female. Similar imbalances feature in the electronic and electrical engineering subfields, with ratios of approximately 1:20 at diploma level. The area in which women are less heavily outnumbered is Draughting and Design. At pre-employment level the ratio is 1:2, though this moves to 1:4 at certificate and diploma levels. Part-time female: male enrolments are 1:7 at pre-employment level, 1:2 at certificate level and 1:11 at diploma level.

20 Containing: Aeronautical, Agricultural/Forestry/Fishery, Chemical, Civil, Draughting and Design, Electrical, Electronics, General Engineering Programmes, Heating Ventilating, Industrial Engineering, Mechanical, Quantity Surveying, Surveying, Technology.
The Computing field of study\textsuperscript{21} does not figure as one of the most popular subject areas, but it is clearly held to be of signal importance in the world of work\textsuperscript{22} and so I have included reference to it here. Overall there is a dominance of male students to female students enrolled full-time. For part-time enrolments the ratios are more evenly balanced with the exception of study at degree level. There, male full-time enrolments are twice female fte, there is (approximately) one ftf enrolment for every two ftm enrolment, and the ratio is 1:3 in the part-time category. The most noticeable discrepancy is at diploma level where the full-time ratio is 1:20, though this falls to 1:1 for part-time. At certificate level, we get 2:3 for full-time and 1:1 for part-time enrolments. At level 4 (pre-employment) the ratios are 6:7 and 2:1. When pre-employment and in-service refresher course enrolments are excluded, the position changes to twice as many ftm as ftf enrolments (as against 2ftf:3ftm inclusive). It would appear that part-time study is the preferred option for female students in this area and with the exception of degree level the proportion of female students to male students in this mode is almost equal.

Summarising from that presentation of the available statistical data, it seems reasonable to state:

1) that women as a group already participate (and to that extent 'achieve') in the polytechnic sector in greater numbers than men: it cannot be claimed that they are 'under-represented' in the sector overall.

2) that women nevertheless form a clear majority of enrolments in programmes that are stereotypically female, notably Social and

\textsuperscript{21}There are six subfields: Computer Awareness Programmes, Computer Operation, Computer Programming/Analysis, Computer Science, Computer Software, Introductory Computer Programmes.

\textsuperscript{22}The Dean of the Faculty of Information at Massey University reports this area to be a fast growing one, with ample career opportunities but notes that while 'there has been an overall increase in graduates, comparitively few are women' (Guardian Weekly 1/11/95 p.15).
Community Services, Business and Commercial and Medical and Health. This participation, in terms of field of study, corresponds closely to the labour market areas in which women have been traditionally employed. Male enrolments are similarly concentrated in the fields of study traditionally associated with men, such as Industrial Trades & Crafts, Transport & Communication, and Engineering. In fields of study where there appears to be a more even gender distribution overall, analysis of the subfields of study (sFoS) once again shows a close association between traditional subject area and gender of student. This is the case for Business and Commercial subjects, with women dominating the secretarial, office systems, clerical and receptionist areas.

3) that women are gaining qualifications through ISCED levels 3-8, though their patterns differ from those of male students. In noting that there are more female enrolments than male at degree level, this choice on women's part could be questioned in the light of unresolved questions about the comparability and worth of polytechnic degrees. A relevant point here, (though tangential because this level was not part of the analysis), concerns the large numbers of female enrolments at level 9 (continuing/community education programmes) which do not lead to a recognised qualification. Whilst not a focus for this study, it is of interest to note here that female enrolments outnumber male quite considerably, yet there is no 'payoff' in human capital terms. Horsfield (1988), in referring to this, asks whether it is because women 'are excluded from level 5 studies because the areas in which they are technically competent are not recognised as 'technical' fields of study by the teaching institutions and certifying bodies' (1988:169). She gave the childcare and fine arts courses as examples, these are located at level 9 rather than levels 3 and/or 5.

23 An article in the Sunday Star Times considers the 'worth' of a polytechnic degree rather than a university degree and reports mixed reactions amongst employers ('It's all a matter of degrees'. 19/1/97 Education p.3)
From this snapshot of participation in the polytechnic sector, it appears that while women are represented across the range of fields of study, distinct patterns of horizontal segregation exist, and this is reinforced when analysing the subfields of study. Though the implications of this are many, I particularly want to mention the predictable outcome of training. One central point here is that of the four best-paid industrial sectors (according to Labour Market Statistics), three are overwhelmingly trained in by men. For example, the Electricity, Gas and Water industry involves training in the Industrial Trades and Engineering fields, both heavily characterised by male enrolments. Conversely, women are the majority of enrolments in the training areas which feed into the two least well-paid industries, Community and Social Services and Retail, Wholesale, Restaurants and Hotels. Another key factor is that even when women train, and are employed in, the same industrial group as men, there is an evident gap between their respective total weekly earnings. The discrepancies between female and male total weekly earnings in the Business and Commercial Industry sector are a case in point. While females earn on average $567, their male colleagues earn an average $857.

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24 See Reskin & Roos (1990) and Reskin & Hartmann (1986) for a comprehensive discussion of this, but fundamentally women's ability to ensure financial autonomy is implicated.

25 In a Labour Market Statistics comparison of the average total weekly earnings by industry for 1995, the Electricity, Gas and Water was the highest paid industry at $744, the second best paid being Public Administration and Defence at $720. Third was Transport, Storage and Communication, and the fourth highest was Forestry and Mining at $706. The lowest total weekly pay ($492) was in the Retail, Wholesale, Restaurants and Hotels industry, $100 less than the second lowest in the Community Social Services industry. In a gender comparison of the average total weekly earnings by industry for 1995, the Public Administration and Defence industry was the best paid for women with a total weekly wage of $605, this industry was the second best paid for men, however, at $813 per week (Labour Market Statistics 1995: Table 8.3). Business and Financial Services was the best paid industry for men at $857 but only the fifth best paid for women at $567. The third best paid industry for both women and men was Electricity, Gas and Water, with total weekly earnings for women of $577 and for men $784. The least well paid industry was Retail, Wholesale, Restaurants and Hotels and this was the case for both sexes, women earning $405 weekly and men $567.

26 While the differences referred to in fn 2 partly explain this gender gap, other factors are equally relevant, such as employers' discrimination in hiring and promoting practices, and female skills not being appropriately acknowledged or rewarded. The discussions in chapters 1 & 3 have described these more fully.
A final point of statistical interest concerns the employment areas identified as 'crucial' for New Zealand's future, and those industry areas identified as likely to produce employment growth.\(^{27}\) It is claimed by the Electrotechnology ITO, for example, that the industry is one of the fastest growing and best-paid, with career opportunities increasing daily in an area where there is a worldwide shortage, and that by 1998 the industry will be the world's no 1 employer (NZ Education Review 12/3/97, p.14). Re-inforcing this, a report in the Sunday Star-Times notes a 40% annual increase of exports in high-end manufacturing such as electronics and engineering, and warns that the tertiary intake into these professions is lagging at under 5% enrolment in this area (Sunday Star-Times 6/4/1997 p. D8). Yet, as the data on the Engineering field of study shows, women are hardly present in this area of training at all, dominated as it is by male enrolments. To reiterate, in the technology subfield the ratio of female to male full-time enrolments at certificate level is 1:77, at diploma level it is 1:10, and at Bachelors level it is 1:16.

5. The Voice of the Professionals

So far in this chapter, I have analysed the 'official' voice of polytechnic discourse, and questioned its tendency to assume a) that the new training regime in New Zealand can be implemented without sacrificing equity or education in the traditional sense; and more specifically b) that getting greater numbers of women in the system achieves equity goals. Yet, in practice, it is the professional staff of tertiary institutions who have to make reforms work or not, and who have to address the 'qualitative' issue of what kind of educational programme best enhances equity for disadvantaged groups. For that reason, I wanted to tap into the views and understandings of polytechnic personnel, to see how they have oriented themselves towards the reforms. Also, debates in the literature around social

\(^{27}\)See Careers 2000, November 1994:6 for a summary of these.
inequality, especially in education, often emphasise that state policy or structural reform/reproduction do not simply work in a 'top down' or deterministic way. A number of commentators have noted how the outcomes of state policy direction are not 'guaranteed', and do not necessarily get interpreted or implemented as intended, processes of educational transmission are always strenuously contested, it is claimed (Codd et al. 1990). It therefore made sense for me to complement my textual and data analysis with one which produced some indication of how those who 'mediate' the training reforms and goals feel about it all. Accordingly, I asked a group of senior polytechnic staff from one regional polytechnic a number of questions, using aspects of E21C and the Polytechnic's Charter Goals to explore the following themes:28

- the assumption/acceptance of an international/global economy and New Zealand's place within it;
- the assumption of a skills revolution and the necessity for all New Zealanders to be highly skilled;
- the assumption of a technological future requiring a highly skilled workforce;
- the assumption that all jobs will require highly skilled workers;
- the assumption that the marketplace operates in a neutral, gender-free way;
- the 'efficiency'/equity' tension.

Q1. In Education for the Twenty-First Century a number of 'National Education Aims' are promoted, such as:

- the attainment of qualifications to enable all to participate successfully in the changing technological and economic environment.

- a highly skilled workforce at enterprise and industry level.

28 The full questionnaire is given as Appendix 5.
(a) How has the polytechnic programme changed/developed as a result of these?

The responses to this first question seem to indicate that there is a generally accepted belief that the polytechnic sector has a pivotal role to play in the production of a skilled workforce and, thus, in economic prosperity. The increasing number, level and variety of qualifications available, including at degree level, is cited by most respondents as an example of how the polytechnic has responded to the changing environment. There are no comments which actually question the relationship between the attainment of qualifications and successful participation in that changing environment, the need for ever increasing training seems to be taken as given. Likewise, the assumption that developments in technology and changing economic circumstances will benefit 'all', is not challenged. The science and technology area is apparently accorded 'high priority' as a matter of fact, although it is claimed that developments have been hindered in this area because of limits in government funding. A number of respondents referred to the growing relationship/liaison with Industry Training Boards, which seem to be acceptable, perhaps because the polytechnic's role is widely held to be primarily vocational.29 There would seem to be a downplaying of the polytechnic's continuing education role and one respondent referred to the decreased amount of funding available for non-work type courses. Overall, the acceptance of the discourse of growth/qualifications/ skills/training is notable in the interviews. There is no real attempt to inject 'functional' imperatives with 'intrinsic' ones. There is little sense that the polytechnic is other than a training organisation, despite the broader definitions contained in the 1989 Education Act.

Q2. In a number of discussion documents and texts the current government talks about 'a culture of training'.

29 In the Annual Reports of the polytechnics, however, the relationship with ITOs is reported as generally problematic due mainly to problems of uncertainty of continuing funding.
(a) What do you think they mean by this?

Most respondents thought that this was to get people ready to accept the idea that they would have to upskill or re-train throughout their lives as technology changed the nature of work. And, as such, this was identified by three people to be about generating a philosophical shift in values and attitudes especially with regard to the idea that jobs were for life. While there was reference to getting young people prepared to expect this, no-one mentioned the older age group for whom this was equally, if not even more relevant. One respondent suggested that it could be seen as signalling a move away from broad-based 'education' towards an emphasis on work related training. No one questioned whether increased training would actually lead to increased employment opportunities or whether, indeed, the jobs were actually there. And, perhaps surprisingly, no-one suggested that training might be being used as a substitute for employment, particularly for the young.

(b) What do you think it is meant to achieve?

Generally, respondents referred to the need for the workforce to be continually upskilled in order for New Zealand to gain economic advantage. Again, the relationship between skilling and economic growth was unquestioned. One respondent did advance the idea that it might be more to do with getting youth 'work ready' rather than skilled.

Q3. One of the central objectives of training reform is the extension of training to industries and occupations which previously had no formal training.

(a) How is this happening at the polytechnic?
The respondents talked about the number of new courses that have become available as a result the reforms, particularly for women. There were references to the formation of relationships with industries where previously none existed. One respondent thought that there was a change in the type of training on offer, for example, more short targeted courses, and an increased use of distance education. There was a suggestion from one person that some industries were requiring higher level qualifications when possibly not needed and that what might be happening, in fact, was 'qualifications inflation'. The increasing influence of the ITOs and the NQF was noted in that programme development was geared to meeting their agendas. One respondent referred to the pressure from ITOs, but there was no comment as to whether this was either positive or negative.

(b) What is the potential impact for women?

This was generally seen as a favourable development in that women were participating in new courses (on a scale greater than men). It was also felt that women benefitted from increased opportunities across a range of non-traditional courses. Two people pointed out that increased opportunities to gain qualifications would benefit women by recognising the skills they brought to the workplace. (Women often had the skills but not the opportunities.) Another respondent claimed that women gained job satisfaction from training even though the qualifications gained generally gave them no pecuniary rewards or contributed to enhanced career development. There is an unequivocal acceptance that the gaining of qualifications is positive, though one person did query this, but did not elaborate. There are no comments on the specific areas that women are choosing to participate in and no sense that there are other 'barriers' to women entering male preserves. One respondent, however, did note the inclusion of EO progammes in industries and EEdO opportunities in the organisation thereby showing an awareness that there might be issues that required such attention. One return indicated that there was no impact for women in their faculty
(science & technology), but did not specify whether this was because it is in an area that has always had trained personnel, or because there are few women there. This was an interesting response because it is in an area that is promoted as new and growing and as such one that could be beneficial for women to train in.


(a) How is the gender aspect of this goal been articulated, interpreted and implemented at Midland Polytechnic?

No-one commented on how equity is interpreted or articulated, the range of responses instead concentrated on the implementation part of the question. One contribution cited the application of the general principles of EEO and EEdO. Others referred to a range of examples of equity practices, with a number specifying that encouragement and support was offered to women who do courses in non-traditional areas. Other examples mentioned included targeted financial assistance - scholarships, open entry, re-entry and taster courses, staff development, childcare support. The key discursive term is 'encouraged', tending maybe to imply informal, sporadic, personal rather than systematic strategy or monitored equity policy.

(b) In your view what difference have equal opportunity (gender) policies at your institution made to training outcomes for women?

The response to this question was very mixed. A number of contributors thought that the situation for women had improved over the years, in terms of better awareness, increased opportunities and greater encouragement. It was suggested, however, that there was 'still negativity in some parts of the workforce'. One contributor thought that EO (gender) policies had made little difference and another thought that social conditioning in the earlier years was difficult to counter.
(c) What else, if anything, could the polytechnic do/change in order to contribute to enhancing gender equity?

The responses to this question indicate that the respondents are aware of many of the factors involved in women's participation and, as such, their combined replies could form the basis of an EEdO programme. Included would be more publicity, consciousness raising, women encouraged into non-traditional employment areas, equity funding, staff development and harassment policies, using educational technology to improve delivery options, particularly in the trades area, gender-sensitive programming, financial support, childcare support. One respondent thought that the polytechnic could be more proactive by challenging industry expectations.

(d) Are there other factors, in your opinion, which limit the achievement of this goal?

There were mixed responses to this question and rather thin in terms of content. There were references to economic circumstances and pedagogic developments. Stronger comment might perhaps have been expected in relation to the role of the government in terms of policy and funding directions. One response was original in suggesting that courses could be offered in more than one learning style to take account of gender differences. No-one talked about the changing context of female participation, particularly in terms of how this affected access to tertiary education, or about career counselling.

Q5. One of Midland Polytechnic's General Objectives specifies that,

'The Polytechnic has adopted a Marketing Plan which promotes regular targeted surveys of employers, industry, and community sectors to identify education and training needs. Programmes developed from these targeted surveys will focus particularly on integrating community needs with national priorities. Clearly
established career pathways, multi-skilling and multi-disciplinary courses will be implemented’ (1994:9).

(a) Do you see any conflicts between meeting the needs of national/community priorities and making an active commitment to gender equity? Please specify.

No one thought there were any serious conflicts, or identified any contradictions. This might suggest that the respondents believe that the system operated neutrally, in an unbiased way, yet it seems unlikely given the level of awareness generally shown.\(^{30}\) One respondent in question 1 referred to the decreased funding available for non-work type courses which leads one to suspect that areas that might be considered high priority in community terms but which do not meet government-defined priority areas will be increasingly hard to fund.

(b) If you think that such tensions (potentially) exist, could the polytechnic do anything to reconcile them?

There was a notable lack of response to this question, possibly indicating that this area is of little concern to the senior management team. Yet, it is mentioned in the Annual Report of the polytechnic as an area of concern. The various governing bodies could potentially address such issues but this depends to some extent on the composition of the representation and their commitment to identifying and meeting the needs of the community.

Overall, it is quite hard to see any definite professional position or consensus coming out of these questionnaire and interview replies. Of course, it could have been that this group of senior personnel were simply too busy (certainly heavy workloads were commented on

\(^{30}\) One area which might have been cited as having a potentially negative impact on women’s training needs and opportunities concerns the uneven development of Industry Training Organisations. For example, those industries which already have a tradition of training (mostly male) have been amongst the first to register as ITOs thereby benefitting from government finance and support.
by most of the participants) to give any developed views, or that they were wary of the questions, and did not want to give too much away - especially to someone whose research was being done out of a 'rival' organisation in the tertiary 'market'! Perhaps there were methodological reasons for failing to really get 'inside' of this group of training professionals: questionnaire plus selected follow-up interviews is hardly the most in-depth way of comprehending the ideologies and practices of people. Putting these valid caveats to one side, my own feeling is that the mixed responses evident in the question-and-answer encounter indicate something of the 'split consciousness' of many engaged in the tertiary reform process, especially perhaps those in leadership roles. On the one hand, the reforms are happening: whatever polytechnic staff say or do, their institution must to some extent 'buy into' the reforms in order to survive. So whilst showing some awareness of the ultimate 'businessification' of education, this is not particularly strongly felt and not particularly negatively viewed. At the same time, there is clearly no passionate belief that everything is healthy or satisfactory in the polytechnic institution, nor do the senior level managers elaborately or consistently articulate the 'seamlessness' rhetoric of E21C. With regard to equity, there is a general feeling that equity goals are being met reasonably well, and that women's needs and participation are valid goals for the institution. Opinion varies, however, on whether this benchmark of participation is enough to signal equity, and no great urgency was expressed even by those who felt that content/role/specialist area as well enrolment figures were matters which needed to be addressed. It was claimed that the institution had worked hard to eliminate discrimination against women in non-traditional areas of study but it was still difficult to encourage more women into these areas. It was suggested that advances in educational technology as well as the increasingly technological nature of many jobs in the trades and technical areas might be an important key in facilitating women's entry into these areas of training and work.
CONCLUSION

This thesis started with an exploration of the definitions of training and established that training does not have a fixed and neutral meaning but is a changing and fluid concept which gets meaning from its political, social and economic context. Instead of understanding training as some kind of factual empirical phenomenon or objective technological necessity, it needs to be reconceptualised as the product of contestable, historically specific processes and discourses. This applies to the key elements within educational/vocational provision too, such as 'equal educational opportunities'. My work in this thesis has, I feel, confirmed the idea that EEdO is a discourse which 'creates and regulates its own categories and practices' (Jones 1994:175). Training for women must thus be seen as a discourse which, whilst operating according to a dominant interest (men's), also reflects a range of understandings about its meanings and practices. As such training 'is a battlefield for a broader struggle over knowledge and power in work' (Jackson 1991:30 cited in Butler & Brown 1993:24).

A particularly important area for further discursive and practical struggle is to take the definitions debate forward rather than getting into a limiting bind of 'education' per se versus 'training' per se. There may be nothing wrong, in the end, with seeing education as necessarily related to the economic structures, professional needs
and vocational profile of its society. It is surely the type of society
whose needs education is meeting that is the contestable question,
not the issue of whether nor not education should be relevant to
society's needs. In that sense, a dogmatic 'elitist' defence of
education against all inroads of vocationalism seems to me to be
very much a traditionalist and ahistorical strategy, one moreover
which has clearly reflected male and upper middle class privilege.
Even if girls and women are beginning to make significant inroads
into the 'purely' academic domain, their full acceptance and value in
public life may still depend on a better balance being struck between
'intrinsic' educational values and the cultivation of a responsible
public culture of work, domestic responsibility and individual
intellectual fulfilment.

The real problem, it seems to me, lies not in seeking to make
education more vocationally and professionally relevant, but rather
in the forging of a hegemonic conception of training which
prioritises the acquisition of commodified skills and qualifications
gained on the basis of 'best' individual returns. As this thesis has
attempted to demonstrate the crass identification of vocational and
professional 'training' with the acquisition of particular sets of
'skills' - especially where the menu of skills tends to reflect the
current repertoire of male occupational needs is unlikely to benefit
women. My research shows that getting greater numbers of women
into the skills-acquisition system is no longer an issue (though with
increasing course costs it might become one), but equally this hardly
represents great 'progress'. The real challenge is to de-masculinise
the priorities placed on particular 'skills', and to try to accept
elements of vocationalism whilst rejecting a 'technicist'
reductionism towards acquiring skills as such.

Overall, there is no doubt that in some respects changes in the
training environment, and in general social development, have
brought some opportunities for women to participate in a wide range
of educational areas. This in turn may well continue the labour
market improvement that is evident to an extent for middle-class
professional women today. We saw this positive aspect coming through in the sheer numbers of women enrolled in polytechnic courses, and in at least one of the training areas (computing) where the gender balance, though favouring males, was perhaps surprising for the way that women figured in it. There are some positive things too in the acceptance of women's place in the government's discourse of the plural, social market society, and in the declarations of equality as a major goal in the professional statements of Polytechnic leaders. Less directly, even if the norm remains patriarchal, the way in which I established, in Chapters Two to Four, that in both government and polytechnic discourses of training there are very contradictory components which set up a difficult tension between 'equity' on the one hand and 'efficiency/meeting industry needs' on the other, demonstrates that there is space for more radical and feminist intervention in training discourses. Since the positive changes in 'general social development' just referred to have been largely the result of feminist activism, it would seem dangerously negative to conclude that the training discourses offered nothing at all to engage with - that they embody a patriarchal-capitalist conspiracy that is forever destined to keep women down.

A crucial area here, to me, is adult education and the important emphasis now being placed, world-wide, on 'lifelong learning'. Again, I have no difficulty in accepting that vocational and professional as well as intrinsic self development are legitimate curriculum goals. And, maybe the latter is a rather romantic, outdated one in which liberal humanist values may not do masses of women much good in the career stakes. But adult education practices have long accredited prior learning and encompassed principles valuing student-centred learning and negotiated curricula, ways of learning that have particularly suited women. The perspective developed in this thesis, whilst not directly bearing on that issue, suggests that any developments which attempt to equate adult education/lifelong learning only with skills updating must be challenged.
In that regard, it is important for feminists and radical educationalists to try to develop strategies and initiatives in the training field, both from a pragmatic and 'utopian' point of view. Thus, for example, attention could be drawn to the need to end job segregation by challenging the separation of domestic and paid work, or by developing autonomous training initiatives for women in non-traditional fields of study/work (Walby 1988:41). After all, there is some support for de-centralised and client-centred processes and funding in the current market-pluralist governmental climate, and it would be complacent not to try to turn some of these pragmatic windows into something more genuinely transformative. For those reasons, the various 'optimistic' proposals with regard to the training potential for women should not be easily dismissed (Payne 1991:149, O'Donnell & Hall 1988:100, Dillon 1986: Foreword, Bose & Spitze 1985). Moreover, it is crucial to remember that there is considerable cross-national variation in both the ideology and the practice of training, and some countries offer opportunities - and useful reference points - which are absent elsewhere. At the same time, of course, apparent gains in career and training profiles might be deceptive, if women's employment and domestic lives remain much the same across national differences.¹

On that more realistic note, I think that overall the work in the thesis shows that there is still a very long way to go to achieve genuine equity for women in training (and in the labour market generally). Training has been moulded in different countries by successive governments of different ideological hues, but arguably the common factor is 'the subordinate position of women within the training process' (Wickham 1985:95). Indeed some argue that even with major improvements in gendered training, nothing much may result, since employment and training programmes as such 'are marginal to the operation of the labour market' (Harlan & Steinberg

¹In a comparison of France and Britain, Crompton and Le Feure (1996) argue in that way. Despite many differences, the underlying employment norm continues to be one predicated on a male job model unconstrained by equally shared domestic responsibilities.
With the continuing failure of modern capitalist states to tackle the question of men's domestic responsibilities, and women's consequent ambivalence about adopting working roles in the image of men's, the larger 'reinforcing circle' that constrains women (Walby 1988:113) cannot be resolved by training initiatives alone.

My historical and theoretical analyses in Chapter One helped establish that wider context of the recent training reforms in New Zealand, and my presentation of the data on enrolments and professional attitudes in Chapter Four confirm the view that even when women's participation rates are improving sharply, without more substantive moves to challenge and change 'attitudes about women's roles and aspirations' (Robertson in Butler and Brown 1993:110), the labour market (and domestic) situation for most women will remain largely as it has been in the past. That would represent a great waste in terms of skilled human resources, and the continuing failure to establish a genuinely democratic society in which women play their full, free and equal part.
APPENDIX 1. Documentation Received from Polytechnics

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/ = requested and received
n/a = not available or none exists
x = no response
APPENDIX 2. Polytechnic CHARTER Goals, EEdO & Access

Aoraki  Promote a commitment to equity (1996: Section 2.2)

Auckland Equity. To provide equal opportunities for all people whatever their gender, ethnic origin or special needs by,
1) fulfilling the principles of the Treaty of Waitangi,
2) providing courses for specific target groups which have been under-represented in the institute or some of its programmes,
3) providing appropriate facilities for people with special needs,
4) providing appropriate learning support and counselling services (1992:8).

CIT  To enable equitable access to and success in educational programmes (1991:2)

C/Church  Educational Delivery - ensure accessible, innovative and client responsive teaching, learning, research and support which facilitate success for students and staff (1996:5)

EIT  Foster equal educational opportunities (1993:2)

Mana’tu  Make an active commitment to socio-economic, gender and ethnic equity (Charter 1991: 2.3.9)

Manukau  Equity of Educational Opportunities by:
- ensuring that policies and practices seek to achieve equitable access and outcomes for all students
- providing appropriate support services to ensure equitable outcomes
- providing an appropriate environment for students with special needs
- ensuring that the curriculum is non-sexist and non-racist
- ensuring that there are opportunities for entry into non-traditional training programmes (1991:8)

Nelson  To provide learning opportunities appropriate to the needs of present and future students.
1.2 To strive for equality of access to programmes for under-represented and disadvantaged groups.(nd:3)
Northland
Provide a positive teaching and learning environment by responding to the needs of disadvantaged groups (1995:33)

Otago
Continue to accept students and staff members without discriminating on the basis of their ethnic background, disabilities, nationalities, gender, sexual orientation, age or special needs (1994:9)

Southland
Provide for and encourage client driven learning opportunities and services
- Improve the representation and achievement of under-represented and disadvantaged groups.
- Foster our social obligations to both clients & staff
- Create and maintain policies which are consistent with the Human Rights Act (1994:7)

Tai Poutini
'To promote equity in access to and appropriateness of educational experience' (1995:5)

Tairawhiti
To encourage and support all people to achieve excellence and to enable as many people as possible to enjoy continuing education (1991:5)

Taranaki
'Taranaki will develop an EEdO policy which will form the basis for specific initiatives aimed at increasing educational access for disadvantaged or under-represented groups (1991:5)

Telford
Use ToW as basis of equity (1991: Section 2.3.5)

The Open
To honour the Treaty of Waitangi (1994:8)

Unitec
Goal 4 'To provide support and EEdO for current and future students' including 'improving the participation, success and progression to employment and further education of students from under-represented and disadvantaged groups' (1994:9)

Waiariki
To demonstrate a commitment to Equity.
-To improve access to courses by catering for the needs of the disadvantaged, including people with disabilities (1993:13)
Waikato Facilitate Access by minimising barriers to learning such as geography, prior educational attainment and the ability to pay...Seek equity by providing for the needs of educationally disadvantaged or under-represented groups (1996)

Wanganui Enhance our effectiveness in dealing with equity issues (1991:18)

Whitireia To actively promote equity of educational opportunity particularly for traditionally disadvantaged groups (1991:8)
APPENDIX 3. EEdO in ANNUAL REPORTS 1995

Key: P.I. = Performance indicator; RPL = Recognition of prior learning; O/c = outcome

Aoraki Goal 4: To promote equal education opportunity by:
- having Maori and differently abled students constitute 4% of total student numbers

Auckland Goal 2: To provide equal opportunities for all people whatever their gender, ethnic origin or special needs.
Objective 5 To encourage and support women ...to continue their education at AIT by making appropriate provisions.
P.I. is % of total EFTS who are women 1995 Actual= 57%, Target 51% (1994 Actual 56%, 1993 Actual =58%) (p.26)

B.o.Plenty Goal: To be customer orientated.
Objective: Implement the 1995 EEdO Management Plan
P.I. i) Completion of draft policy and plan and
ii) Programme developments to widen community access to learning includes 'Pathways' a bridging programme aimed at women (pp.11-12)

CIT Goal 5: Offer alternative access to advanced technological, professional and vocational education for students living where there is no poly or access is not available/limited.
P.I. Residential accommodation offered. No breakdown on m/f ratio (p.11)

C/church Goal F: Empower students...to achieve equity through Council policies and Polytechnic practices.
Output stated as Objectives: Implement recommendations from 1994 RPL pilot study
P.I. A limited RPL service established and trialled
O/c: Achieved
P.I. Accreditation to award RPL credits obtained
O/c: Objectives redefined (p.21)
EIT Objective: Increase the participation and learning achievements of under-represented and disadvantaged groups in EIT programmes.
P.I. Number and % of EFTS recorded for...rural women increased in 1995 compared to 1994
O/c not reported.
P.I. Completion and other achievement outcome of under-represented and disadvantaged groups analysed and reported.
O/c Completion data is not able to be analysed by the groups listed in objective.
P.I. Needs analysis will include the educational needs of under-represented and disadvantaged groups.
O/c Specific survey not undertaken but extensive consultation (p.19)

Hutt Valley Goal 2: 'Ensure equity and show respect for and value our varied cultural heritage'
 a) EEdO : i. To ensure all staff are aware of the legislation and practical implications of EEdO for HVP
 O/c EEdO introduced as concept at staff induction. Will become a training module in 1996
 ii. To facilitate access for students - provision of self funding child-minding facility for students.
 O/c Creche approved by Council and tender to build set in 12/95
 iii. To support the educational and training needs of those who are disadvantaged by identifying additional opportunities.
 O/c Proposal developed and presented to Academic Board (this includes provision of additional courses for women groups) (p.60).

Manawatu Equity included as performance indicator under each output heading. Actual against target female EFTS enrolment is reported on in each faculty (output). In addition under a separate EEdO section a commitment to enrolling female students in non-traditional programmes is expressed (p.43).
Manukau  Goal 3 Objective 2 'Provide EEdO throughout M.I.T
P.I.s relate to Maori, Pacific Island, other ethnic, and
disabled students. Females not a category.
EEdO Report to Associate Director on achievement of EEdO
plan.(p13)

Nelson  Nothing reported in Annual Report. (Has EEdO Policy)

Northland  Objective 4 'Provide access to programmes for students
from under-represented or disadvantaged groups'
P.I. %EFTS for Females,1995 Target: 58%, Actual: 56%
Female counsellor provided (p.51)
Under separate equity section EEdO describes various
initiatives, none specifically directed at women, nor are
women identified as a group 'under-represented in the
student body' (pp.56-59).

Otago  Goal 7.3 Continue to accept students and staff
members without discriminating on the basis of
their...gender
Obj 1. Continue to monitor ..student selection policies to
ensure compliance with Otago Polytechnic equity policy
O/c. A monitoring process has been established (p.8).
Separate report on equity - includes a number of
objectives. ie 5 "To provide proposals for staff
development programmes which focus on EEO/EEdO issues".
O/c Staff & students encouraged to attend 'Dealing with
Diversity' seminar held in 1995. (also reports student
statistics - numbers of male, female, European, Maori,
Asian, Pacific Islanders& Other students in each
department) (p. 52-53).

Southland  Goal 1 'Provide for and encourage client driven
learning opportunities and services'
-Improve the representation and achievement of under-
represented and disadvantaged groups.
O/c. Relates to Maori & Pacific Islanders only
Goal 2 'Foster our social obligations to both clients &
staff'
O/c. No specific reference to women. (pp.8, 9).
The Open Goal 2.4 Accessibility to under-represented groups.
Proportion of female students amongst total student population.
O/c: 1995 Target = 44%, Actual = 46.8%

Tai Poutini Goal 6 'To promote equity in access to and appropriateness of educational experiences'
P.I. Provision of distance teaching network, provision of subsidised transport
O/c Achieved (p.17).

Tairawhiti Nothing reported - has no specific goals relating to women. Has an EEdO policy which seeks the elimination and avoidance of creation of unnecessary barriers, plus support services, ie. appointment of career counsellor, establishment of childcare centre (p.14).

Taranaki No report on EEdO in Annual Report. Taranaki will develop an EEdO policy which will form the basis for specific initiatives aimed at increasing educational access for disadvantaged or under-represented groups' (Charter)

Telford Goal: Provide effective learning opportunities. Objective: provide equality of access to education through support to students, eg. creche, library facilities)
P.I. female FTS as % of total. O/c =24% (pp. 10-11).

Unitec Goal 4 'To provide support and EEdO for current and future students'.
Objective is to achieve enrolment % for under-represented & disadvantaged groups which are at least equal to the equivalent population.' O/c: Female FTS =47% (p.24).

Waiariki Goal 5 'To demonstrate a commitment to Equity'
Objective: No specific reference to women, but requires policies and procedures ensuring education equity written into poly-wide quality assurance systems. O/c: Achieved (p.38).
Waikato
Goal 3 Facilitate Access (p.11)
Goal 4 Seek equity by providing for the needs of educationally disadvantaged or under-represented groups.
Objective: Increase participation and access for those groups.
P.I. Increase participation of refugees and immigrants.
O/c: 11 EFTS earned.
Obj: Maintain poly hardship fund. O/c: Maintained but underspent (p.12).

Wairarapa
No specific goal relating to women as a group. Has an EEdO policy which deals with processes such as selection and enrolment. All new programmes go to Women's Advisory Group prior to submission to Academic Board. (p.42)

Wanganui
Goal 9 'Enhance our effectiveness in dealing with equity issues'
Objective: meet desired student outcomes (female):
success = 94%, progression to further study = 41%, progression to employment = 14% (p.8,13).

Whitireia
Goal 3 'To actively promote equity of educational opportunity particularly for traditionally under-represented (disadvantaged in charter) groups'.
Objs: i) Profiles of enrolled FTS will in gender reflect profile of community. O/c: F=74%
   ii) actual completion rates for gender will be as for poly target overall.
   O/c: F= 75% (target was 80%)
   iii) success rates for gender groups will achieve same target as for the poly. O/c F= 97% (target was 90%).
   EEdO statement identifies pakeha/European males as the under-represented group within student body (pp. 14-16).
APPENDIX 4. EEdO in STATEMENTS OF OBJECTIVES

Aoraki
EEdO as a specific goal. Objective: EEdO policy be implemented and reviewed, at least annually.
% of female students to reflect % of females in the community.

B.o.Plenty
No specific EEdO objectives. Under 'organisational culture' the intention to establish a coordinating committee to be responsible for EEdO is registered.

C/church
Management Objective/Education Delivery 'Facilitate EEdO' = % of total EFTS who are female (50%).

Statement on Equity. Christchurch Polytechnic 'has had an acknowledged leading position in championing equal opportunities for women to continue education & training. This predisposition continues today despite significant tension with the need for economic viability & the spectre of government 'funding attrition'.

CIT
There are no key objectives for EEdO. Recognition of prior learning is noted.

EIT
Goal = 'Foster equal educational opportunities.
Mgmt Goal 4 'To further EEdO Objectives = 'Increase the participation and learning achievements of under-represented and disadvantaged groups in Hawke's Bay Polytechnic programmes.
Success Measures = No. & % of EFTS recorded for Maori, people with disabilities and rural women increased in 1996 compared with 1995.

Nelson
Equity of access to programmes for under-represented and disadvantaged.
Bridging courses noted as an important means of encouraging progress into other programmes.

Southland
Goal 1 Provide for and encourage client driven learning opportunities & services.
Objective 1.3 Improve the representation and achievement of under-represented and disadvantaged groups.
Corporate & Faculty Performance Targets. Nothing on women for period 1996-1998

Reference is made in the introduction to 'a number of activities to encourage women into new areas of tertiary education'.

Tai Poutini Goal = 'To promote equity in access to and appropriateness of educational experiences.

T.P. established an EEdO policy in 1994 and this provides the objectives to report against. Additionally, for 1997 the following specific EEdO objective, 'To promote gender balance in academic programmes'.

Tai Rarwhiti General Objectives for 1996-1998 include a statement on educational access, ie. providing opportunities for non-traditional tertiary students and increasing study options.

Taranaki Goal: 'T.P. will develop an EEdO policy which will form the basis for specific initiatives aimed at increasing educational access for disadvantaged or under-represented groups'

Under Equity heading the poly states that the principles of equity 'underpin many aspects of the Statement of Objectives'. There is no separate EEdO goal. It is claimed that equity standards take priority over those of market forces where necessary (T.P. 1994:6)

Telford Goal: 'Provide effective learning opportunities that encourage the physical, spiritual and cultural well-being and development of all students

Objectives: 'Provide equality of access to education services (eg. literacy, numeracy, library)

'Provide a hostel...'

Unitec Goal 4 'To provide support and equal educational opportunities for current and future students'

One performance indicator is the % of women in non-traditional programmes (1996 goal for this is greater than predicted % for 1995 which is 10%)

(another is % of men in non-traditional progs)
Waiariki Goal 5 'To demonstrate a commitment to equity'
Obj 5.3 'To maintain or improve the record of the poly in provision of education and training to students from identified disadvantaged or under-represented groups.
Women identified, target to be set.
Other objectives under this heading concerned with student support eg. specific learning difficulties, access and EEO

Wanganui Goal 9 'Enhance our effectiveness in dealing with equity issues' see definition re equity p. 6
EEdO indicators reported in Annual Report

Whitireia Goal 3 'To actively promote equity of educational opportunity particularly for traditionally under-represented groups' p.4
Obj 1 That the profiles of enrolled students (in f-t, MoE & ETSA funded programmes) will - in ethnicity and gender - reflect the profile of our community, or will show greater participation by traditionally under-represented groups.
Female =51%
2) & 3) That the completion & success rates for gender & ethnicity of students will match that of total number of students.
4) That the gender & ethnicity profile of staff moves towards reflecting that of enrolled students and that staff profile patterns are maintained across different levels of staffing.
APPENDIX 5. Questionnaire/Interview Questions & Responses

1. In *Education for the 21st Century* a number of 'National Education Aims' are promoted, such as:

   the 'attainment of qualifications to enable all to participate successfully in the changing technological and economic environment';

   'a highly skilled workforce at enterprise and industry level'.

How has the polytechnic programme changed/developed as the result of these?

Responses

1. These have always been the aims of the Polytechnic. Thus there has been a steady growth in the *variety* and in the *level* of courses offered by the Polytechnic, encouraging *more* people to gain qualifications and skills - hence promoting the aims above. **Examplar** - a new area: Veterinary Nursing - a new level: we had a **Certificate** course in sport and recreation (1 Year) and we have developed a further year course at **Diploma** level.

2. Polytechnic programmes have always been focussed on skills for work. A major change has been driven by the funding changes - less funding for community type programmes (not related to work).

3. As a polytechnic we have always had this focus. Actively developed relationships with ITO's Science and Technology courses given high priority within the polytechnic Development in the area has been limited due to limits on Government funding. Ensured that all courses are 'staircased'.

4. There is an increased relationship with Industry Training Organisations. Increased number of nationally recognised qualifications including degree programmes Management emphasis on quality management issues. Strategic importance placed on Education Technology.
5. Increasing the level of qualifications available from the framework. Considerably more liaison with advisory bodies and ITO's

6. I have only been working in the Polytechnic for 5 years and in that time I have been impressed by the ongoing commitment to upgrading the level of qualifications offered. The 1990 Education Act has probably had a greater effect on enabling this aim to be met than anything else.

7. More courses with qualifications available at all levels and attention given to 'staircasing' of these. Greater liaison with advisory bodies including I.T.O's. More intensive planning and marketing of courses.

2. In a number of discussion documents and texts the current government talks about a 'culture of training'.

(a) What do you think that they mean by this?

Responses

1. That there should be a prevailing philosophy that all people who are either in, or who may in the future be in, the workforce should be constantly assessing the level of their qualifications and skills and seeking training which will enhance their ability to move into employment, or to jobs which require higher levels of training than their present jobs.

That young people at school or in pre-employment tertiary training should aim at the highest level of training that they can achieve in order to enhance their opportunities of employment.

2. Training rather than education. Focus on skills acquisition rather than the broader development of the whole person. Specific skills related to employment becomes the focus - it also links through to an increasing emphasis on assessment - standards based.

3. To train people in the notion that they will have to undergo training at periodic intervals throughout their working lives.

4. A culture implies that it is part of life not 'added in' as an extra.
5. The values and attitudes brought to that training and developed through it.

6. Impressing on people, particularly young adults, the need for training after leaving school, to increase their chances of employment.

7. To get people used to the idea that they should expect to have to re-train a number of times in their working lives, either for the job they do or for different jobs.

(b) What do you think it is meant to achieve?

1. As highly trained a workforce as possible thus promoting economic growth.

2. Probably to ensure there is a skilled workforce. (If I'm being cynical, social engineering). To ensure that students leaving a polytechnic are 'work ready' - able to take their place in the workforce, ready to contribute, be productive.

3. Technology and the workplace are constantly changing and if NZ is to have an economic advantage the workforce must be constantly upskilled.

4. That people have access to enough training to realise most of their potential whether that be at home, in the workplace or attending a learning institution.

5. A recognition of the value of ongoing training and lifelong learning, recognising that people will have more than one job in their lifetime.

6. Increasing the skill level of the workforce and therefore NZ's place in the world economy.

7. A flexible workforce. To get people used to training rather than unemployment.
3. One of the central objectives of training reform is the extension of training to industries and occupations which previously had no formal training.

(a) *How is this happening at the Polytechnic?*

**Responses**

1. New courses are being introduced continuously. Examples: Veterinary Nursing, Certificate in Fine Furniture Making (being offered in 1997), Diploma in Complimentary Health.

2. Unsure. Some programmes are new - eg. retail. Others have/require higher level qualification (qualification inflation).

3. We have gained some ITO contacts in some areas where we have not traditionally taught.


5. Through liaison with Advisory Committees and ITO's.

6. As unit standards are being registered on the NQF, providers are developing programmes leading either to the award of a local certificate or a National Certificate. ITOs are putting pressure on for this to happen.

7. Through contact with ITOs etc.

(b) *What is the potential impact for women?*

1. Many of the new courses attract a high proportion of women. Examples: in the Veterinary Nursing course two intakes of 20 each year have been entirely women.

2. Positive, more opportunities are available across a wide range of non-traditional areas.

3. Nil for this faculty.
4. In many cases, although women have the skills required, they have not had the opportunity to have a qualification to back them up, or the formal training to apply those skills. Providing more access to training will change that situation.

5. Opportunities through EEdO in the organisation. EO programmes in industry. Greater recognition of the qualifications women bring to the workplace.

6. A greater range of qualifications available in occupations previously ignored. Better recognition of the work women do.

7. Women will be able to gain qualifications in areas of work which up until now have not required them.


(a) How is the gender aspect of this goal been articulated, interpreted and implemented at Midland Polytechnic?

Responses

1. We have always *encouraged* women to apply for courses which traditionally attract few women. I don't think this has been widely articulated or publicised as much as it should have been - we probably haven't been as proactive as we should have been given the commitment we have made.

One specific policy has been to make financial assistance available for childcare, so making it easier for women with childcare responsibilities to attend courses.

In one course at least we have deliberately programmed most of the class hours within the 9 -3 range, thus making it easier for women with schoolchildren to attend.

2. Encouraging women into non-traditional areas eg. trades. Providing staff development for male lecturers in these areas to ensure they do not discriminate unintentionally. Scholarships for women only. Equity funding to assist students from under-represented groups - including women.
3. Students are encouraged to apply to do courses in non-traditional areas.

4. In appointment of staff and entry to courses there is always a reminder that we are an equal opportunity employer. In the situations I have been in there has never been a gender bias either way.

5. An open entry policy of enrolment. Programmes for Maori women.

6. By the application of the general principles of EEO and EEEdO. A policy for the former is in place and the latter is currently being developed. Programmes targetted at re-entry to the workforce and 'tasters' of possible options. Programmes aimed at the 'caring professions'.

7. Using equity policy to inform all areas of our work. By supporting students in a variety of ways eg. childcare provision, financial help. By encouraging students who want to study in non traditional areas.

(b) In your view what difference have equal opportunity (gender) policies at your institution made to training outcomes for women?

1. Not a great deal.

2. Enabled women to achieve goals they would not have considered possible 10 years ago.

3. Improved over the years but still negativity in some parts of the workforce.

4. There are now several women oriented courses available. I have seen repeated opportunity and encouragement for women to take on previously male dominated training.

5. A better awareness of equity issues/gender issues in traditionally male dominated trades training areas.

6. I would suspect there are larger numbers of women obtaining qualifications in all areas (including trades). There are many
accounts of women who have gained tremendous self-esteem from attending even a short course and who have gone on to gain employment.

7. Raised awareness and expectation of women's potential, though difficult to undo the social conditioning of earlier years.

(c) What else, if anything, could the Polytechnic do/change in order to contribute to enhancing gender equity?

1. More publicity encouraging women to consider non-traditional courses. Encourage appropriate organisations (eg. Soroptomists) to create more scholarships to assist women. (They already make some available).

2. Continue to offer staff development - awareness raising, attitude changing. Challenge inappropriate practices - staff and also male students who harass female students.

3. -

4. By completely individualising training, particularly in trades areas, there would be a lessening of the stigma associated with courses. So increased use of distance training would open up courses. Associated with this would be more on-the-job training courses.

5. Focus on timing and positioning of its training programme. Open and flexible learning opportunities.

6. If funds were unlimited, on-campus childcare facilities, more flexible delivery options, ie. timing of attendance, computer based.

7. Be more pro-active in relation to changing/challenging industry expectations

(d) Are there other factors, in your opinion, which limit the achievement of this goal?

1. Not that I can think of.

2. -
3. Financial, if funding for education was higher greater support could be given to these groups of students.

4. There are generalised learning styles that are different between gender. Courses need to be offered in more than one learning style to account for gender differences.

5. -

6. Government funding being decreased at the same time as increased compliance costs for accreditation etc.

7. Financial constraints determined by government, leaving our institution with little room to manouevre.

5. **One of Midland Polytechnic's General Objectives specifies that**

   'The Polytechnic has adopted a Marketing Plan which promotes regular targeted surveys of employers, industry, and community sectors to identify education and training needs. Programmes developed from these targeted surveys will focus particularly on integrating community needs with national priorities. Clearly established career pathways, multi-skilling and multi-disciplinary courses will be implemented' (1994:9).

(a) **Do you see any conflicts between meeting the needs of national/community priorities and making an active commitment to gender equity? Please specify.**

Responses

1. No - they should go hand-in-hand.

2. No

3. No

4. No there should not be any conflicts as both gender groups exist in industry and community and so both areas of commitment should be able to be achieved.

5. No
6. Only when the priorities exclude women.

7. There shouldn't be, though it is likely that women's needs will take second place to national needs.

(b) If you think that such tensions (potentially) exist, could the Polytechnic do anything to reconcile them?

1. -

2. -

3. -

4. see 5(a)4

5. Yes through the Advisory Committee structure.

6. Encourage women into non-traditional careers to meet the demands of the job market.

7. Seek alternative funding.
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