

QUIET STUDENTS
IN
GEOGRAPHY CLASSROOMS

A Thesis
submitted in partial fulfilment
of the requirements for the Degree
of
Master of Arts in Geography
in the
University of Canterbury
by
Karen M. Nairn.

University of Canterbury
1994

ERRATA

ge 2	paragraph 2	line 6	practice should be practise
ge 34	paragraph 1	line 2	emancipaory should be emancipatory
	paragraph 1	line 3	afffirm should be affirm
ge 61	paragraph 2	line 3	percentage should be percentage
ge 71	paragraph 1	line 5	particiaption should be participation
ge 77	paragraph 2	line 1	ommissions should be omissions
ge 103	paragraph 3	line 4	participation should be participation
ge 124	paragraph 3	line 8	guaging should be gauging
ge 133	paragraph 2	line 4	<i>Poverty is Women</i> should be <i>Poverty's Women</i>

ABSTRACT

The classroom is a geographic and education site that is simultaneously private and public space. The three dimensions - the physical, educational and social dimensions of the classroom environment define a unique site in which to explore the issues of public voice, safety, and the gendered nature of geographic education.

This research explores the interrelationships between curriculum content and public participation patterns in four secondary geography classrooms. The key research questions are:

- 1) which students seldom talk in public? Why are they quiet?
- 2) what happens to female and male students' public talking patterns when women-focused content is introduced?

The research process incorporated three distinct phases - *investigation*, *intervention* and *evaluation*. The *investigation* phase focused on individual students' public participation; this involved classroom observations, and interviews with quiet female and male students. Interviews with female students showed that female students have very good reasons for not participating in public. Silence is one self-protective strategy to manage the risks of evaluation - of being watched and judged by others in the class. Interviews with the male students were less conclusive which signals the need for further research.

Women-focused curriculum *interventions* were introduced in two classes. The students, teachers and researcher *evaluated* these lessons via questionnaires and interviews. During these lessons, female students talked more, watched more and gave more of an answer. Altering the content on *one* occasion inspired some female students to talk more.

ACKNOWLEDGEMENTS

I would like to thank Prof. Adrienne Alton-Lee and Dr Garth Cant for their excellent supervision. I value highly the challenging, inspiring *and* supportive ways in which they supervised me.

I would like to thank the teachers and the students who were involved in the research. In particular, I would like to thank 'Ms Lapresle' and the students of '5L' who were interviewed, for their close involvement in the research.

I would like to acknowledge the support of my partner Mac, and the patience of my two children Chloe and Amelia.

A Secondary School Study Leave Award made this research and thesis possible.

Thank you.

Karen Nairn.

March, 1994.

CONTENTS

CHAPTER		PAGE
	ABSTRACT	i
I	INTRODUCTION	1
	I. THE QUIET STUDENTS' PERSPECTIVES	
	II. MY PERSPECTIVE	
	III. EDUCATION AND EMPLOYMENT	
	IV. WHY GEOGRAPHY CLASSROOMS ?	
	V. PUBLIC TALKING AND GEOGRAPHY	
	VI. LISTENING TO THE QUIET STUDENTS	
II	THEORETICAL CONTEXT	11
	I. THE GEOGRAPHY OF EDUCATION	
	II. THE ROLE OF FEMINIST THEORY IN THE RESEARCH	
	III. THE GEOGRAPHICAL CONTEXT	
	IV. THE EDUCATIONAL CONTEXT	
III	METHODOLOGY	33
	I. INTRODUCTION	
	II. CLASSROOM OBSERVATIONS	
	III. INTERVIEWING THE STUDENTS	
	IV. THE WOMEN-FOCUSED LESSON	
	V. THE EVALUATION PHASE	
	VI. PRESENTATION OF 'THE RESULTS'	
IV	PUBLIC VERBAL SPACE	57
	I. TRIANGULATION OF THE DATA SOURCES	
	II. THE RESEARCHER'S PERSPECTIVE	
	III. THE PUBLIC VERBAL SPACE OF 5L	
V	SAFETY AND RISK	89
	I. PARADOXICAL SPACE AND THE EVALUATIVE CLIMATE	
	II. EXPERIENCES OF BEING AT THE CENTRE AND AT THE MARGIN	
	III. BEING WATCHED AND JUDGED	
	IV. FEAR OF BEING LAUGHED AT	
	V. PRIVATE SPACES IN THE CLASSROOM	
	VI. GETTING IT RIGHT OR WRONG	

VI	ACCESS TO THE TEACHER	103
	I. 'NOT PUTTING THE TEACHER OUT'	
	II. COMPETING WITH OTHER STUDENTS FOR PHYSICAL SPACE	
	III. OVERESTIMATION	
	IV. THE DELUSION OF SELF-PERCEPTIONS ?	
VII	WOMEN-FOCUSED LESSONS	117
	I. THE RATIONALE FOR WOMEN-FOCUSED LESSONS	
	II. THE WOMEN-FOCUSED LESSONS	
	III. STUDENTS' PARTICIPATION-THE COLLECTIVE SCALE	
	IV. STUDENTS' PARTICIPATION - THE INDIVIDUAL SCALE	
	V. STUDENTS' PERCEPTIONS OF THE CONTENT-COLLECTIVE SCALE	
	VI. STUDENTS' PERCEPTIONS OF THE CONTENT-INDIVIDUAL SCALE	
	VII. THE TEACHERS' PERCEPTIONS	
	VIII. THE RESEARCHER'S PERSPECTIVE	
	IX. TRIANGULATION OF THE DATA SOURCES	
VIII	EVALUATING THE RESEARCH	139
	I. THE POLITICS OF CHANGE - STRATEGIC FEMINISM	
	II. REFLEXIVITY IN THEORY AND PRACTICE	
	III. TOWARDS A GENDER-INCLUSIVE GEOGRAPHY CURRICULUM	
	IV. INTERVIEWING AS AN INTERVENTION	
	V. TURN-TAKING AS AN INTERVENTION	
	VI. MALE STUDENTS AND SILENCE	
	VII. THE FUTURE ?	
IX	CONCLUSIONS	161
	I. PEELING BACK THE LAYERS	
	II. WHAT WAS UNCOVERED	
	III. FEMALE AGENCY	
	REFERENCES	169
	APPENDICES	177

LIST OF TABLES

TABLE	PAGE
1. Female and male enrolments for the three levels of secondary geography, 1990.	4
2. Female and male achievement at the three levels of secondary geography, 1990.	5
3. Female and male students' 'share' of the total student-teacher interactions in the four geography classes.	61
4. Female and male students' absence rates during the observed lessons.	63
5. The proportions of each classes' total of female and male students, who were silent during one or more observed lessons.	64
6. The students with the highest number of public student/teacher interactions - 'ranked.'	66
7. The students who had the lowest number of public student/teacher interactions - 'ranked.'	69
8. The quiet students of 5L, from the students' perspectives.	73

9. The students' perceptions of their own participation levels.	74
10. The quiet students of 5L, 'ranked.'	75
11. The frequent participants of 5L, from the students' perspectives.	80
12. The students' perceptions of their own participation levels.	81
13. The frequent participants of 5L, 'ranked.'	82
14. "If the teacher asks you a question, how likely are you to get it right?" - the students' perspectives.	98
15. Did you participate more in this lesson?	121
16. The importance of the content.	126
17. Female and male students' 'share' compared with their 'share' during the <i>interventions</i> .	135

LIST OF FIGURES

FIGURE	PAGE
1. The key components and interrelationships that the research will explore.	7
2. Students' participation and non-participation in the public verbal space of geography classrooms.	8
3. Diagrammatic Outline of Chapter II.	12
4. The research design.	37
5. The categories of public student-teacher interactions.	40
6. The women-focused lesson plan for 7H.	51
7. The women-focused lesson plan for 5L.	52
8. The gendered nature of public verbal space and of silence in four geography classrooms.	59
9. Map of 5L's classroom.	72

10. The students named by the teacher as silent students/students who do not take part in class discussion - the two lists.	76
11. Triangulation.	77
12. 'Map' showing where the quiet students sit in 5L, and summary of the source of data about each student.	79
13. 'Map' showing where the frequent participants sit in 5L, and summary of the source of data about each student.	84
14. 5L's seating arrangement and the direction in which each student faced.	91
15. The <i>evaluation</i> of the women-focused <i>intervention</i> .	117
16. What the students who participated <i>more</i> , said about the women-focused lesson.	123
17. What the students who participated <i>about the same</i> , said about the women-focused lesson.	124

CHAPTER I

INTRODUCTION

I. THE QUIET STUDENTS' PERSPECTIVES

Nichola:¹...it's sort of a confidence thing and if you take part...if I took part more then I would be more confident to take part in other things maybe...it would help build up confidence (second interview).

Nina:...because it is quite important for people to feel as if they can say what they feel and say their opinions...and like in life or if you are in a job...you can't just sit there and wait for people to ask you, you have got to learn to say your ideas...so it is quite good practice at saying things in front of groups of people... (second interview).

Zoe:...well I suppose I would like to talk more but you know sometimes you just don't understand, you can't really say anything but I think it would be better if I did talk a bit more really

Interviewer:...why do you think it would be better?

Zoe: well you learn a bit more and you get confidence and everything... so it is much better for you like getting a job or something (second interview).

Terry: Well the teacher can find out if everyone understands everything and it helps people to get good at taking part in class discussions which they might need later on in life

Interviewer: what might they need it for...?

Terry: For, say a job where you have got to talk to people about things, have discussions with other people you are working with about ideas (second interview).

These four quiet students from a fifth form geography class, have made their own connections between public talking in class and the benefits it could have in the world both inside and outside school. Nina, Zoe and Terry have all made the specific link between public talking, and getting and doing a job. The four students made these connections in response to general questions about talking in class; there was no specific interview question about talking and getting jobs. These four students have eloquently summarised the essential elements of the argument for the importance of practising talking in public, in class.

II. MY PERSPECTIVE

Two personal experiences were pivotal in shaping this research that is about public talking and silence in secondary geography classrooms. The first experience occurred in the mid-1980s, in my early years as a secondary geography teacher; I read Dale Spender's *Invisible Women The Schooling*

¹ The names of all the students and teachers have been changed throughout the thesis. The students' names underlined are followed by their 'spoken' words; their written words are followed by their names in brackets.

Scandal (1982) and was shocked to find out "that on average, teachers spend at least two-thirds of their time talking to their male students". Even more shocking was Spender's claim that when teachers *thought* that they had spent *more* of their time with female students, this was not actually the case; in fact, the best Spender herself could achieve was spending 42 % of her time with female students.

The second experience was teaching a seventh form geography class in 1990, of which two-thirds were male students, and seldom hearing from the female students despite conscious efforts to ask them questions and involve them in class discussions. I became aware of the predominance of a few male students in class discussion and of the number of silent female and male students who were not getting opportunities to practice talking in public. I talked with the class about what I had noticed and asked the female students about their perspectives; some of them said that they preferred not talking in class. It was clearly a complex issue; silent female and male students may not want opportunities to talk publicly. There were significant implications for classroom management too; in order to provide more opportunities for some students to talk more, other students would need to talk less - how could this be achieved appropriately? This question was particularly challenging in relation to the seventh form class where the male students, who talked frequently in the public forum of the classroom, did so according to the 'rules', and the female students, who seldom talked in public, said that they preferred it that way. These two experiences were crucial in the formation of the research.

This research is grounded in a commitment to positive change for female and male students in geography classrooms, so it is much more than description and interpretation. As a feminist geography teacher, my goals and teaching practice involve critique and strategies for change - both of curriculum materials and social relationships - and a political commitment to building a more just society. Feminist goals are human goals - implying care and concern for our students as human beings (Weiler, 1988). This research is feminist research because the social construction of gender is central to the inquiry; gender is one of the key organizing principles "which profoundly shape/mediate the concrete conditions of our lives" (Lather, 1991).

The overt ideological goal of feminist research in the [social] sciences is to correct both the invisibility and distortion of female experience in ways relevant to ending women's unequal social position (Lather, 1991:71).

III. EDUCATION AND EMPLOYMENT

The Status of Girls and Women in New Zealand Education and Training (Sturrock, 1993) shows that the academic performance of female students is equal to or better than their male counterparts in all subjects including geography, but women are still disadvantaged in the labour market. Women are underrepresented in professional and technical occupations and in senior positions. Research has shown that quiet employees are less likely to be noticed for promotion (Krupnick, 4 June, 1992), and it could be argued that quiet individuals are less likely to be noticed for employment and/or training. Confidence and verbal skills are essential for students when they are interviewed for employment and/or access to tertiary education in an increasingly competitive world. A greater proportion of quiet students in co-educational classrooms are female students and these students may be disadvantaged in the post-school world where competency in verbal skills is one gate-keeping mechanism, determining access to labour and training markets.

Schools 'legitimate' the dominant groups in society by valuing the knowledge, language and patterns of interaction - the 'cultural capital' - used by the dominant groups (Weiler, 1988). More specifically, it is *pakeha*² (white) male knowledge, language and patterns of interaction that are valued and legitimated in schools in Aotearoa/New Zealand (Alton-Lee and Nuthall with Patrick, 1993; Newton, 1988). This *pakeha* (white) male knowledge and the way individual students deal with it, contribute to the cultural reproduction of unequal race, gender and class relations in education and in employment, as well as in other spheres. "The choice of particular content and of particular ways of approaching it in schools is related both to existing relations of domination and to struggles to alter these relations" (Apple, 1991); teachers as well as students struggle to alter existing relations of *pakeha* (white) male domination in schools. Teachers who choose women-focused content are countering the domination of male knowledge in schools. Female students who do not take part in a curriculum that excludes them, are resisting the domination of male knowledge in schools.

²*Pakeha* is the Maori term for white New Zealanders. The term is used as a mark of respect for the right of the indigenous people to name those who came after them (Alton-Lee and Nuthall with Patrick, 1993).

IV. WHY GEOGRAPHY CLASSROOMS ?

Student-teacher interactions have been widely researched at all levels of education and in subjects such as English, Maths, Science and Home Economics. However, what happens to students' public participation patterns in Geography has not been explored. Geography is a unique subject in which to carry out such an inquiry, because it is not clearly identifiable as a subject more likely to be chosen by female or male students. In fact, its identity on the basis of student choice, is fluid and dependent on location, time, level of education and many other factors. For example, in the seventh form at one secondary school it may be a subject that mainly female students choose because geography is timetabled against physics or chemistry, while at another school it may be chosen by more male students because it is timetabled against art history and biology.

At the national scale, secondary geography is chosen by relatively similar numbers of female and male students. Female and male enrolments at the three levels of secondary geography in 1990, are shown in Table 1.

Table 1. Female and male enrolments for the three levels of secondary geography, 1990.

	School Certificate	Sixth Form Certificate	Bursary
Female	49.4 %	48.9 %	51.2 %
Male	50.6 %	51.1 %	48.8 %

(Source: Sturrock, 1993:37:39:41).

Female and male achievement at the respective levels of secondary geography in 1990, are shown in Table 2.

Table 2. Female and male achievement at the three levels of secondary geography, 1990.

	School Certificate grades A1-B2	Sixth Form Certificate grades 1-4	Bursary B or higher
Female	65.9 %	40.0 %	27.8 %
Male	63.8 %	33.2 %	23.3 %

(Note that percentages refer to the proportion of total females/males who enrolled and gained the top grades, for example, 65.9 % of all females enrolled in School Certificate geography, gained A1-B2 grades. Source: Sturrock, 1993:38:40:42).

These statistics present a picture of a similar proportion of female and male students enrolling in secondary geography, and of a greater proportion of female students achieving success in geography. However, the teaching of geography is dominated by men. Currently, there are university geography departments in Aotearoa/New Zealand that have no female academic staff. In terms of secondary teaching staff in Christchurch and the surrounding area, Nairn (1991) found that 80 % of the 37 geography classes involved in the study carried out in 1989, were taught by men. Spender (1981) explains how female experience is not articulated and validated in academic circles where the creation of knowledge is taking place. This has a two-fold affect on what is taught in secondary geography. Firstly, geography teachers are products of the structural problem in their own education and in turn this influences their teaching. Secondly, female experience is not articulated and validated in the secondary geography context either, so female and male students continue to experience male hegemony.

What geography is today is very much the product of those who have had their particular interpretation of the world accepted. It is therefore not surprising that the discourse of contemporary geography can, on the whole, be seen as a statement by white, middle-class and middle-aged men about their environment (Longhurst and Peace, 1993:3-4).

The draft document of the new syllabus for secondary geography was circulated in 1986 and was challenged for being sexist; subsequently, the words 'man and his environment' were consistently replaced by 'people and their

environment'. The term 'people' is more inclusive than the term 'man' but is problematic if 'people' is used as another word for 'men' (Alton-Lee and Densem, 1992). After nearly a decade of using this 'non-sexist' language strategy, research has revealed that male hegemonic representations of the world, on which geography is based, remain unchallenged (Longhurst and Peace, 1993; Alton-Lee and Densem, 1992).

Research carried out by Nairn (forthcoming) has revealed the gendered perceptions of secondary students in their drawings of a geographer - an ungendered subject. Students in six secondary geography classes were asked to draw "a geographer." A total of 113 students drew geographers, 73 % of these drawings were of male geographers, 14 % were of female geographers, 9 % were of a female and male geographer together, and 3 % were gender-unspecified. For 73 % of these geography students, 'geographer' was synonymous with 'man'; the conflation of geographer with man will be explored in more detail in the next Chapter. The drawings are a rich source of data about how geography is viewed by these secondary students; who they think does geography and by implication who does not.

V. PUBLIC TALKING AND GEOGRAPHY

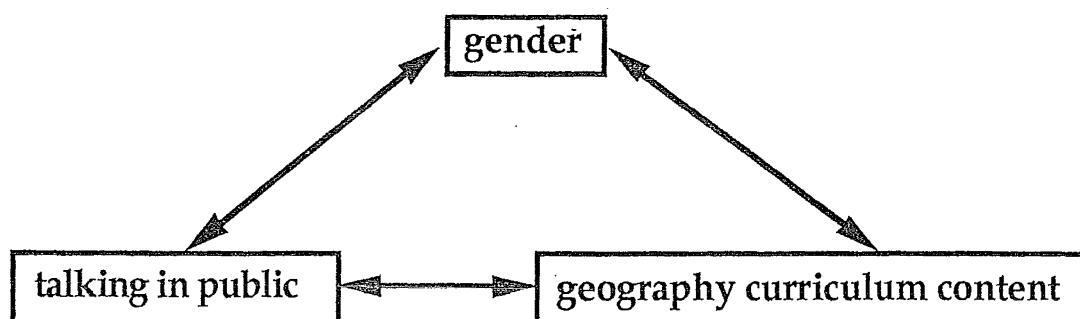
Geography classrooms are one site where female and male students could practise talking in public. However if the geography curriculum retains its male focus, talking in public may be problematic for female students: "why should girls actively participate in a curriculum that largely excludes or devalues their experience?" (Alton-Lee and Densem, 1992). Hence the formulation of women-focused³ curriculum interventions and the evaluation of their impact on the gender distribution of student/teacher interactions in geography classrooms. The rationale for incorporating women-focused curriculum interventions into the research design, was to go beyond description of students' public participation patterns to introducing a strategy for change and a means of evaluating the effectiveness of this strategy - did it change female students' public participation patterns in a positive way?

Figure 1 shows the key components that the research will explore - public talking, the content of the geography curriculum and how gender is

³ The term women-focused curriculum /lesson is used to refer to content that is primarily about women.

one of the central dynamics that influences who does the public talking and who the geography curriculum is about.

Figure 1. The key components and interrelationships that the research will explore.



The key research questions are:

- 1) which students seldom talk in the public forum of secondary geography classrooms in Aotearoa/New Zealand? What are the reasons for their silence?
- 2) what happens to female and male students' public talking patterns when women-focused content is part of the secondary geography curriculum?

The first question is concerned with the investigation of what is currently happening in some secondary geography classrooms; the second question is concerned with introducing a strategy for change and evaluating its relative 'success'.

Geography provides 'space' as the central metaphor and concept for this exploration of the interrelationships between talking in public and the geography curriculum content. The conceptualisation of the auditory space of public talking, as public verbal space is developed in Chapter II and is shown in visual form in Figure 2. Education research provides the means of understanding why students do and do not take part in the public verbal space of classrooms. Figure 2 presents the conceptual framework for the research; participation and non-participation in the public verbal space of geography classrooms is influenced by the geography curriculum content - what is taught - and pedagogy - how geography is taught. Participation and non-participation in the public verbal space of geography classrooms is also influenced by the gender, race, class, sexuality, age, and prior knowledge of the students. For the purposes of this research, the gender of the participants and non-participants will be the primary focus, with attention to race and age. The parameters within which the research will operate, are more fully explicated in Chapters II, III and IV.

Figure 2. Students' participation and non-participation in the public verbal space of geography classrooms.

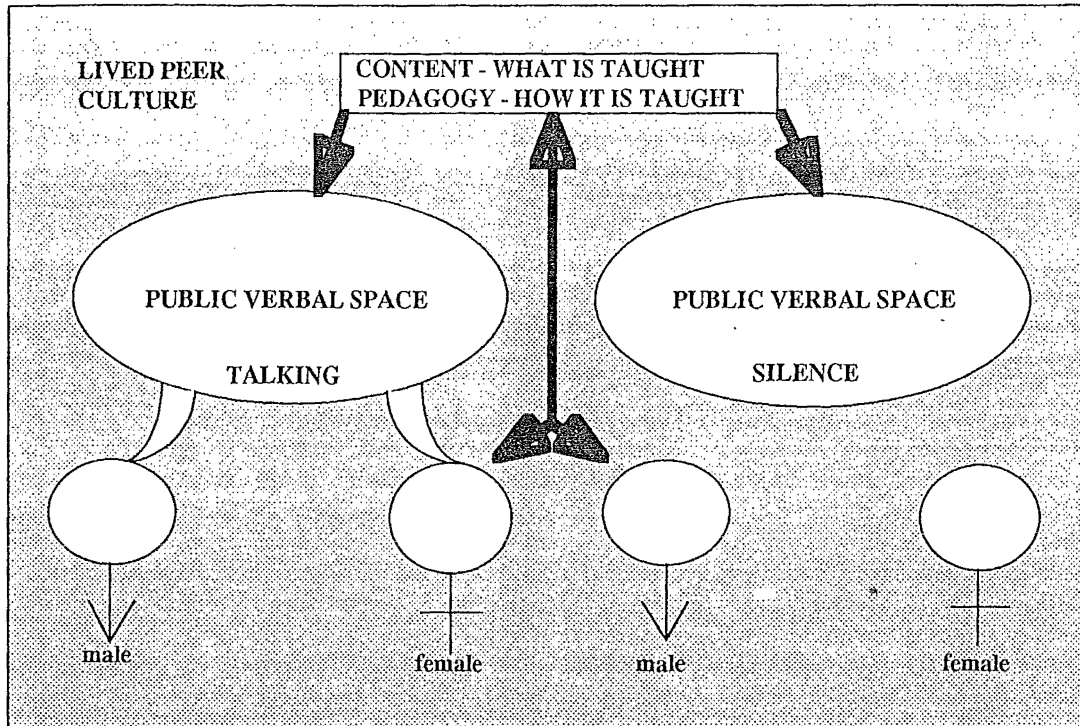


Figure 2 makes visible the audible and inaudible realms of public verbal space; the diagram has been constructed to take account of public talking and of silence. The left-hand side of the diagram shows public verbal space as one speech bubble to be 'shared' by female and male students; this implies that female and male students are competing for an equitable 'share' of finite public verbal space. The right-hand side of the diagram shows that some female and male students do not take part at all in the public verbal space; they are silent. The two sides of the diagram are not mutually exclusive and students may take part in the public verbal space of one geography lesson and remain silent during another. Two factors that will influence individual female and male students' decisions about whether or not to participate in a lesson, is the content and pedagogy of that lesson. The process of teaching content is not a one-way top-down process, students are influential in shaping the teacher's choice of content and teaching style prior to and during the lesson; this two-way process is indicated by the arrows.

Teaching and learning in the classroom take place within the sociocultural context of "lived [peer] culture" which "refers to [peer] culture as it is produced in ongoing interactions and as a terrain in which class, race and gender meanings and antagonisms are lived out" (Apple and Weis, 1983:27). Each student's experience of the classroom peer culture will influence their

decisions to talk in public and to remain silent. The lived peer culture of the classroom is 'enclosed' in the frame of the diagram, and is the air that the students 'breathe' - it is everywhere, invisible, and powerful in its positive and negative forms. The judgements of peers can be the most affirming or the most damaging experiences of an individual's life. Chapter IV uses this same diagram to present what 'share' of public verbal space female and male students were getting in geography classrooms, and what proportions of the female and male students were silent.

The primary spatial focus will be the public verbal space of geography classrooms and the secondary focus will be the physical space of these classrooms, where information about the physical space is useful for better understanding the nature of its public verbal space. The physical space refers to the layout of seating, proximity to the teacher, the characteristics of the back, front, centre and periphery of the room. In order to explore students' participation and non-participation in the public verbal space, public student-teacher interactions will be used as a 'measure'. There are two advantages of using public student-teacher interactions as a 'measure'; firstly, student-teacher interactions are a well-researched measure of who gets teacher attention. Secondly, it was important to confine the research inquiry to the single most pervasive form of public interaction in classrooms - student-teacher interactions - in an attempt to manage the research of such a complex environment, the classroom. Detailed definitions of *public* and *student-teacher interactions* are given in Chapter III.

VI. LISTENING TO THE QUIET STUDENTS

Previous research had focused on the talkers, I wanted to listen to the quiet students. The practical goal of the research was to provide a space in which quiet female and male students could talk about talking, away from classroom dynamics; this was achieved by one-to-one interviews. The opportunities to gain verbal competency at school, should be fairly distributed to all female and male students. One of the best ways to find out how to achieve this, is to listen to the students who currently have the least access to these opportunities - the quiet students. Nichola described her experience of being listened to:

Nichola: It's quite good, it's quite fun because I have never done anything like this before, it's sort of interesting. You...come in here and you don't have any views on anything, by the time you go out you know what your ideas are because you sort of don't talk about them to anyone else, and then you go out and you know what you are talking about, you know what you actually think...with the class discussion bit it makes you aware of the fact that I do wish I would take part more and so then you try to take part more, if you've got something that you think is right, you say...you have a better understanding of yourself...when you talk to someone about it, it all of a sudden clicks (second interview).

CHAPTER II

THEORETICAL CONTEXT

I. THE GEOGRAPHY OF EDUCATION AND THE EDUCATION OF GEOGRAPHY - AN INTER-DISCIPLINARY APPROACH

The classroom is a geographic and education site that is simultaneously private and public space. The three dimensions - the physical, educational and social dimensions of the classroom environment define a unique site in which to explore the issues of public voice, safety, and the gendered nature of geographic education. This section is concerned with making explicit the inter-disciplinary nature of the thesis - the geography of education and the education of geography. Theoretical frameworks have been selected from two bodies of knowledge - education and geography - and these have shaped the research and the written thesis.

Education and geography both have inter-disciplinary traditions that encourage the challenging of disciplinary boundaries as well as the exploration and mapping of new terrain. However, the catalyst that facilitates the education of geography and the geography of education in this thesis, is feminist theory and critique. Feminist theory and critique is an effective model of the inter-disciplinary approach because

its interdisciplinary focus on gendered power relations, does not fit easily into pre-existing disciplinary pigeon-holes, but suggests new ways of knowing the world (McDowell, 1992a:195).

Feminists such as myself, have utilised and continue to utilise the cross-fertilisation of ideas between feminists working within diverse disciplines, to inform our work. My experiences of the inter-disciplinary worlds of feminist theorising and writing have influenced my commitment to and adoption of a feminist and inter-disciplinary approach to my research.

The adoption of an inter-disciplinary approach has enabled me to select from both the geography and education literatures, the theoretical frameworks that best facilitate the organisation and explanation of my research. Both the geographical and educational contexts for this thesis are equally important; however I have chosen to discuss the theoretical underpinnings of the geographical context first followed by those relevant to

the educational context. Feminist and spatial understandings are embedded in and link both contexts.

Figure 3. Diagrammatic Outline of Chapter II.

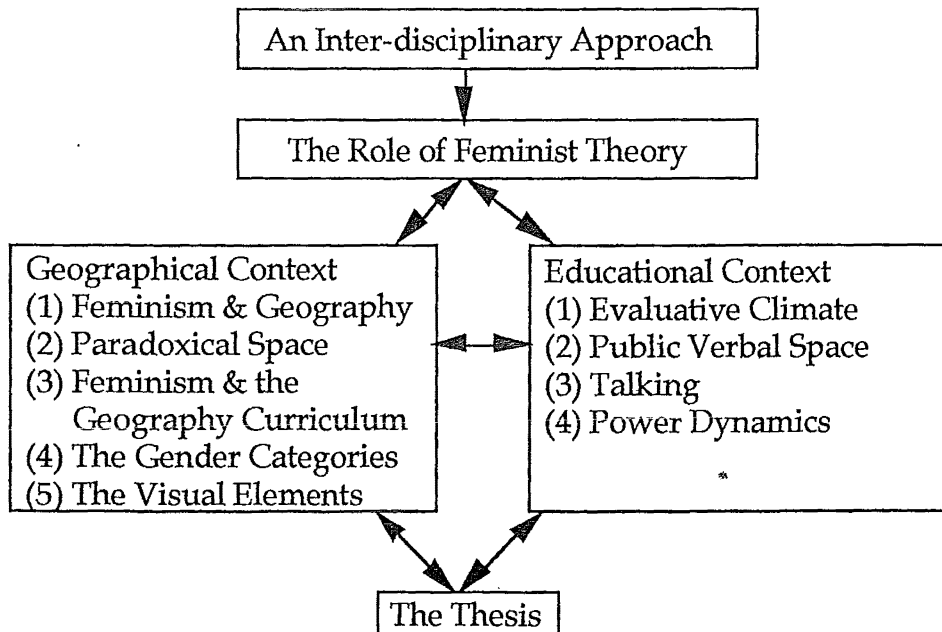


Figure 3 shows in diagrammatic form the shape of this chapter. The inter-disciplinary nature of the thesis has already been explained and this will be followed by a section concerned with the role of feminist theory in the research. The geographical context comprises five subsections concerned with exploring the influence of feminism on geography, paradoxical space, the nature of gender categories, and the visual elements of the geography discipline. The educational context comprises four subsections concerned with evaluative climate, public verbal space, talking/silence and power dynamics in the classroom.

II. THE ROLE OF FEMINIST THEORY IN THE RESEARCH

The feminist critiques of the social sciences in general are appropriate to education and geography in particular. Feminist theory and research have challenged geography and education in diverse ways; the most pertinent to this research are the questions raised about whose knowledge is being taught in secondary geography, who has a voice in the enacted curriculum and who has not, and the role of gender in these processes. McDowell (1988:158-59) provided me with some useful guidelines that have shaped my own feminist approaches to research in geographical education at secondary school level:

Feminist research is *not* research solely about women...it must be centrally concerned with gender relations, with the inequalities in the structure of social relations between women and men...that women's experiences, ideas and needs become accepted as valid in their own right...that [it] is research *for* women...improving women's lives in one way or another.

My research is about female and male geography students with a particular focus on quiet students - those female and male students who seldom take part in the public forum of class discussion and seldom interact publicly with the teacher. It is centrally concerned with gender relations and the inequalities in the structure of social relations between female and male students in secondary geography classrooms, and how these affect the public voice of quiet female and male students. I am aware of "a new scepticism about the use of gender as an analytical category" (Bordo, 1990) which seems "to cut the ground from under feminist science" (McDowell, 1992b). However, Bordo (1990:413) goes on to say:

We all - post-modernists especially - stand on the shoulders of this [feminist] work. Could we now speak of the differences that inflect gender if gender had not been shown to make a difference?

This research is about the difference that gender makes as well as individual differences *within* the gender groups, using the dynamic of public voice as the principle to guide this exploration of difference. Alton-Lee & Nuthall with Patrick (1993) and Grima and Smith (1993) make significant contributions to the classroom research literature by focusing on individual students and their perceptions of the curriculum and the public verbal space of their primary and intermediate classrooms here in Aotearoa/New Zealand. This research is concerned with the secondary sector of state co-educational schooling in Aotearoa/New Zealand. The education system of Aotearoa/New Zealand is the focus of my research because it is the system that I have taught in, and it is the system that my two daughters will participate in.

The research is more than the description of gender relations and inequalities; it is about discovering the ways that female students already disrupt patterns of interaction and gain public voice, as well as explicating the ways that geography teachers can take a more pro-active role in ensuring fair access to the public verbal space of the classroom and fair provision of content about women and men in the geography curriculum. In other words that female students' experiences, ideas and needs are given adequate space and become accepted as valid in their own right in both the public verbal space of geography classrooms and in the secondary geography curriculum.

This research is *for* female students so that it may contribute to the growing body of research about how education can provide more fairly for female students. In more immediate terms it is *for* female students via inservice education for their teachers; for example I facilitated seminars based on the findings of my research, for interested teachers in the West Coast, Nelson, Marlborough and Canterbury regions in November, 1993. The emphasis of these seminar presentations was to supply teachers with practical strategies to select from; these strategies are concerned with providing more opportunities for female students, particularly quiet female students, to participate in the public verbal space of their classrooms. The strategies are applicable to quiet male students too, and can be utilised in both co-educational and single-sex classrooms. These strategies are presented as Appendix 1.

In a practical and symbolic way, this research is *for* quiet female students because the thesis provides a public forum in which the quiet students, particularly the quiet female students, are given the most space in which to 'speak'. The written format of the thesis is organised to ensure that female students have the first and the last 'say' in the thesis itself. Thus, there are two parallel processes that this thesis aims to facilitate: to give quiet female students (1) a voice in the public verbal space of the geography classroom and (2) a voice in the written space of academic and teaching literature.

Both feminism and postmodernism have raised important questions about who speaks for whom. Kofman (1992:228) suggests a strategy that has relevance for this thesis:

A white middle-class woman may not be able to speak for a black woman but that does not preclude opening up spaces where other women, with greater difficulties being heard, can express themselves.

As a female secondary geography teacher, I cannot speak for quiet female geography students, but I can provide a space for female students to have a voice.

III. THE GEOGRAPHICAL CONTEXT

(1) Feminism and Geography

"Feminist work in the geography discipline still has to insist that gender should be central to geographical theory, and in that sense feminism remains outside the geographical project" (Rose, 1993). The marginalisation of feminism in the geography discipline is echoed and re-echoed throughout the social sciences. Maguire (1987) points out that even "within the alternative critique of social science and research, feminist critiques are marginalized, if not totally excluded. The mainstream of both the dominant and alternative paradigms is a 'male-stream'" (Duelli Klein, 1983).

There is a general resistance to incorporating feminist ideologies and practices into geography (Stokes et al, 1987; Johnson, 1994). Spender (1981, original emphasis) describes it as a *structural problem* because not only have men determined the parameters of [geographical] knowledge and excluded women from the process "but the process itself can reinforce the 'authority' of men and 'deficiency' of women." Johnson (1994:104) points out that this structural problem continues to persist:

despite the many successes in dealing with male bias in the discipline, patriarchal power continues unabated within the academy. Such dominance persists because of the active protection and advancement of male interests during a period of economic stringency and political conservatism within Australasia as well as elsewhere.

Just as feminism remains outside the dominant and alternative paradigms of social sciences such as geography and education, so do female students remain outside the public verbal space in co-educational geography classrooms. However, it is not a simple dualism of being outside *or* inside. Female students are physically located inside the classroom space yet many of these students are not participants in the public verbal space. Similarly, feminism is 'located' inside tertiary social science courses and writing, yet continues to remain outside 'male-stream' knowledge. The simultaneous positioning of feminism both inside and outside the geographical project renders feminism both powerful and powerless; powerful to disrupt current geographical knowledge and powerless whenever it is marginalised.

(2) Paradoxical space

The classroom is a common yet unique public/private space that has received little attention from geographers in their research. Gillian Rose (1993) has developed the concept of paradoxical space in *Feminism and Geography: The Limits of Geographical Knowledge*; this concept will be used to understand the reluctance of some female students to take part in the public verbal space of the geography classroom. Paradoxical space is the simultaneous experience of inside-ness and outside-ness, of occupying both the centre and the margin (Rose, 1993). Paradoxical space also facilitates the understanding of how physical and verbal spaces in classrooms operate simultaneously as public and private spaces depending on the positionality of the individual.

As a geography teacher I have experienced the space of the classroom as a relatively private space in which I have a level of autonomy to teach and interact with students that is within the bounds of professional and national curriculum guidelines. My experience reflects the relatively powerful position that I occupy as a teacher in the classroom space. It compares with my experience of the staffroom and the school grounds as the public space of the school. In contrast, the students' experiences of the classroom are of a public space, and their experiences of the classroom space is often intensified by proximity, numbers of other female and male students, physical layout and evaluative climate. The dualism of the public and private spheres that has preoccupied geographers for so long is disrupted in the realm of the classroom where the two spheres operate simultaneously depending on whose perspective is considered.

A continuum is more representative of the continuous structure of the public and private spaces in one classroom over time and space; this challenges the dichotomy of public/private space. For example, students may experience working in pairs or in small groups as being in relatively private space, compared with giving an opinion in front of the whole class as operating in the public realm of classroom space. Individual students will experience the public realm differently, depending on their level of confidence, their verbal skills, their gender, race, class and sexuality. The teacher may experience their classroom as a relatively private space when all students are positively responsive to the teacher's instruction and management techniques. However, the private world of the individual

teacher's classroom can erupt into the more public world of the school environment when there are students who disrupt their class and surrounding classes. The teachers' experiences of classroom spaces will also be influenced by their gender, race, class, age and sexuality, their length of teacher service and their particular philosophy of classroom management.

(3) Feminism and the Geography Curriculum

There has been a rapid expansion of feminist geographical research over the past decade "but, as yet, this research has had little influence on geography curriculum in schools" (Bowlby, 1992). There are three strands to feminist geographical research and all have value and implications for the school geography curriculum and for this thesis. The first strand is the 'geography of women' - making women visible in geography - women's experience and use of space. This research offers a rich resource for teachers but is problematic if used uncritically:

[f]irstly, the concentration on gender roles suggested a static form of relations between the sexes. It thus ignored the history of past change or the possibility of future change in those relations... Secondly, the theories and approaches used to analyse women's geography were simply modified versions of existing ones and had not been developed specifically for the task of analysing women's social subordination and its geographical implications (Bowlby, 1992:353-4).

The second strand asked:

...how gender relations vary over space and what social processes produce such variation. [It] also began to analyse the interactions between particular forms of gender relations and the arrangement of human activities in space. [It] asked whether and, if so, how, this arrangement might both reflect patriarchal power and help sustain it (Bowlby, 1992:354, original emphasis).

These insights generated new perspectives of conventional geographic issues and led to entirely new issues being examined (see McDowell, 1993a, 1993b). The focus of this thesis: public verbal space and the secondary geography curriculum is a new combination of research interests. This research is concerned with exploring how gender relations varied over the confined physical and public verbal space of four geography classrooms, what social processes produced this variation, and the role of the geography curriculum in these processes.

The third strand of feminist geographical research is concerned with the direction in which feminist geography is moving to take account of differences and dichotomies. Bowlby (1992) suggests that "feminists are struggling to develop approaches in which the significance of power based on

class position, race, age, and sexuality as well as gender can all be incorporated" (see also Bondi, 1993; Kobayashi and Peake, forthcoming; Rose, 1993). I have taken account of individual differences by collecting data on individual female and male students' participation in the public verbal space of four geography classrooms. Information about the race and age of the female and male students who were interviewed has also been collected. The priority of the research was to listen to the perspectives of quiet female and male students, students who may be considered to be a relatively powerless group in the public verbal space of the classroom. This discussion of power and its interrelationship with silence/talking in the classroom, is further developed in named subsections of the educational context.

There is a body of research on the geography curriculum at the tertiary level and a smaller amount written about the secondary level. The geography curriculum at the secondary level is more tied into its national context than the tertiary curriculum and it becomes more difficult to generalise across countries. Writing about the curriculum experiences of Britain and the United States appears to be the most accessible - this can be both informative and misleading. This thesis is concerned with the secondary geography curriculum in Aotearoa/New Zealand and the associated issues specific to this time and place.

Debate continues about the place of feminist geography in the curriculum at the tertiary level as to whether it is part of the mainstream or a separate course (McDowell and Bowlby, 1983; Monk, 1983; Peake, 1985; Johnson, 1990) This debate has relevance in discussion of the role of feminist geography at the secondary level. Johnson's (1990) concern that women's places and 'problems' are studied and incorporated into unaltered frameworks and curriculum at tertiary level is generating new theories and resources that will have an effect on secondary geography. Johnson's (1990:17) vision is one where feminist geography is not only inside and central to the geographical project but transforms it:

...the challenge is to create a feminist geography which has feminism at its centre; to formulate an alternative discourse which offers a fundamental and thorough critique of the discipline but which also moves beyond analysis to a reconstruction of the subject, pedagogy and politics of geography.

Longhurst (forthcoming:8) provides an apt summary of 'progress' towards this goal and identifies the public silences of feminist geographers in academia:

Developments in feminist geography over the last decade could be read as 'progress'. However...a notion of progress assumes that the existing dominant discourse has permitted entrance of the previously unspeakable. The 'new' discourse of feminist geography is not uncensored - at times, the unspeakable remains unspoken. Amongst feminist geographers there seems to exist shared hesitations concerning what comments are made publicly, knowing the importance of remaining onside with often powerful 'mainstream' geographers. There is much that remains unsaid.

This is analogous to the experiences of the quiet female students in the public verbal space of their classrooms, who 'censor' themselves stringently and do not comment publicly. Even in the one-to-one interviews, where these female students were able to talk more freely, there is still that which remains unsaid. What remains unsaid is important, silence is meaningful but is more risky to interpret than what is said. I acknowledge the partial nature of my account because "there is much that remains unsaid".

McDowell (1992b:413) has acknowledged that the way ahead will not be easy for feminist geographers but points out that we have particular skills for mapping new territory:

It is clear that the construction of partial and situated knowledges from a critical position will not be an easy task. It is one that has just begun and there are few methodological guidelines...But this aim - the construction of committed, passionate, positioned, partial but critical knowledge - is one which is eminently geographical in its recognition of the locatedness of knowledge.

(4) The Gender Categories - what do they really mean?

This transformative process of "engendering change" in the geography curriculum (McDowell, 1992a) takes on the monolith represented by the large proportion of drawings of male geographers drawn by secondary female and male geography students in 1993 (Nairn, forthcoming). Rose (1993) has described this monolith as the masculinism of geography, and specifically names the gender of geography as male. Rose's description and a large proportion the drawings appear to contradict McDowell's claim (1992a) that "the curriculum of human geography, is still overwhelmingly concerned with an ungendered subject". Nevertheless, Rose's (1993) and McDowell's (1992a) insights together are related and important; the word 'people' which supposedly denotes an ungendered (gender-unspecified) subject is often another word for 'men'. In other words, the generic categories *people* and *geographer* tend toward the specific category *men* (Alton-Lee and Densem, 1992; Henley, 1989). This was borne out by the drawings, a greater proportion of the students imagined the gender-unspecified subject - geographer - as a male; a small proportion imagined the geographer as a female. If gender-unspecified and supposedly gender-inclusive terms such as *people* and

geographer are more likely to mean *men*, what happens when gender-specific terms such as *women* and *men* are used?

The apparent opposition and differentiation of the gender categories *women* and *men* are misleading when "Woman is described in terms of Man" (Rose, 1993). This operates on two levels: (1) Woman is described by Man - it is "the masculine idea of the feminine" (Rose, 1993), and (2) Woman is described in language that takes for granted the 'norm' is Man, yet this language must make it clear that she is not a Man. Therefore, the two gender categories are really *men* and *not men*. The relationship between *men* and *not men* "is exclusionary [of women]...because it is structured around...the masculine...it cannot admit radical difference from itself" (Rose, 1993). For example, as a geography teacher I have used the term *farmer* when referring to men farmers; it is only when I want my students to realise that I am talking about women farmers that I refer to *women farmers*. My gender categories are *men* and *not men* in this instance; all *farmers* are *men* and when they are not they are called *women farmers*. Gender-unspecified terms such as *farmer* are intended to be inclusive of women yet they have the opposite effect, these terms exclude women. In order to challenge the tyranny of gender-unspecified language, we should refer to *men farmers* as well as to *women farmers*; the explicit use of *both* female *and* male language forms result in the most gender-balanced associations (Harrison, 1975, my emphasis).

Rose (1993) has remarked on the unmarked nature of the subject of human geography exposing *him* and delineated the concomitant exclusion of *women*; these are the strengths of her work. Nevertheless, it requires more than this; the students' drawings (Nairn, forthcoming) have shown in pictorial form, their conflation of *geographer* with *man* and such evidence is significant for the geography discipline where "the visual is central to claims to geographical knowledge" (Rose, 1993).

(5) Seeing is Believing - the visual elements of the geography discipline

More research is needed to explore the mental maps and pictures that are 'stored' in our heads; this is a crucial step in effectively challenging the masculinism of these mental images. It is not enough to tell about the masculinism of geography, it must be portrayed. For example, as a secondary geography teacher, I asked the students in my sixth form geography class to imagine a farmer in Africa who was preparing to plough a field, and to write a physical description of this farmer. I then asked the students to read out

their descriptions - 16 of the 18 female and male students had described the farmer as a male; many of the descriptions had included stereotypical terms such as 'emaciated' and 'wearing poor clothing'. This exercise was then followed by showing the students a video *The Struggle for Land* (New Internationalist, circa 1986) of the farmer - she is robust, dressed appropriately for farming work and drives the oxen to plough her own land. The challenging of the students' own mental pictures with a visual resource such as a video was an effective strategy. The process of finding out about the students' own mental pictures and/or following it with a visual resource to show a reality different to the one that many students have imagined, is a recurring motif in my research and resource development. My interest in the visual components of geographical knowledge is summarised partially by Parsons' (1977) claim that: "many of us are in geography because it involves using our eyes". The conflation of seeing with knowing in the geography discipline has been argued in detail by Rose (1993) and this process is pervasive beyond the parameters of the discipline.

Seeing is believing or knowing, is not only true in the context of the geography discipline but also in terms of 'westernized' culture where the media in all its forms, bombards us with visual images constantly. Therefore, the gender-biased images that are in our heads must be challenged by visual resources as well as audio and written material. This will not be easy; research has shown that the process of discovering and developing appropriate women-focused resources is time-consuming (McBride, 1993). It is even more difficult to find visual resources that are women-focused; resources that at first appear to be women-focused require analysis to ascertain their appropriateness. Sadker and Sadker (1982) have identified six different forms of bias to look for when analysing curriculum materials for sex bias. The video *The Price of Marriage* (New Internationalist, circa 1986) that was utilised in the research as a women-focused visual resource, was analysed to determine whether it *really* was women-focused; these results will be reported in Chapter III.

IV. THE EDUCATIONAL CONTEXT

(1) The Evaluative Climate of the Classroom

The evaluative climate is the conditions that students experience and negotiate in their respective classrooms. Doyle (1983:12) has defined the evaluative climate as connecting "academic tasks to a reward structure. Answers, therefore, are not just evidence of having accomplished an academic task. They also count as points [or grades] earned in an accountability system". Academic performance in exchange for grades is central to the classroom ethos, nevertheless, there are other 'performances' that occur in the classroom and are watched and judged by the teacher and/or other peers. The classroom is one of the most evaluative public sites that exist; the academic and social capabilities, appearance, dress and behaviour of each individual student, have the potential to be evaluated by their teacher and/or their peers. The evaluative climate that stems from a student's peers is often more powerful than the one that stems from the teacher, although the two are interconnected. The evaluative climate will differ from classroom to classroom, depending on the teacher, the group of students and the subject. Each student in a particular classroom may experience the evaluative climate differently, depending on their gender, race, class and sexuality. In fact, the evaluative climate that is operated by the teacher and/or peers in each classroom, may be more stringent for some students compared with others. "By being recipients and witnesses to these judgements, students become aware of evaluative dimensions and build an evaluative map of a classroom environment" (Doyle, 1983). Babad (1990) showed how calling on a student to answer questions was interpreted by students as supportive when addressed to a high-achiever and as pressure when addressed to a low-achiever. In her research the high and low-achievers were presented as male students; it would be interesting to replicate her research and use gender as another variable.

A useful analogy for geographers, is to imagine the evaluative climate as the weather conditions of each classroom, and just as a weather map shows areas of high and low pressure, so do individual student's perceptions reflect high or low levels of risk associated with participating in the public verbal space of their classroom. The quiet students often locate together in particular areas of the classroom in one or more groups, away from the teacher's direct line of vision; Krupnick (4 June, 1992) calls these the "silence ghettos". It is possible to draw a map of which students and therefore which group of students experience the evaluative climate of a particular classroom as

involving a high level of risk, based on their observed levels of participation in the public verbal space. Spatial representations of where the quiet students sit in one of the four geography classes involved in the research, are provided and discussed in Chapter IV. These spatial representations serve the additional purpose of indicating which students experience the evaluative climate of these geography classroom as particularly risky and where they sit.

Therefore, the evaluative climate of a classroom is a key contextual influence on individual student's decisions to participate in the public verbal space of the classroom and to remain silent.

There is risk involved in responding publicly and failing. Individual [students] are more or less likely to be able to lower the risk and accomplish tasks successfully because of differences in their prior knowledge, experience, and the particular skills and resources available to them both within and outside of the classroom. For [students], participation in classroom lessons involves negotiating risk publicly and managing the social consequences of succeeding or failing (Alton-Lee and Nuthall with Patrick, 1993:60).

Quiet students minimise the risk by not participating publicly which indicates that silence is an effective strategy in managing the social consequences associated with giving the right or wrong answer. However, silence may adversely affect individual student's ability to accomplish tasks, particularly discussion tasks, which in turn may affect their achievement in subjects where verbal skills are assessed. Students' quietness may be noted on official documents such as reports; for example, comments such as: 'quiet member of class', 'does not take part in class discussion' are written down and become available "to parents, school officials, and others who have not witnessed the performance [or lack of] at all" (Doyle, 1983:12). Finally, silence represents missed opportunities to practice verbal skills that are needed to successfully compete in labour and training markets. This is not meant to infer that quiet students *should* talk or that it is the fault of these students if they do not talk; rather the theoretical premise is conveyed by these two questions:

- (1) what can be changed about classroom management techniques to ensure that opportunities to talk in the public verbal space are *fairly distributed* and the associated risks are minimised?
- (2) what can be changed in the geography curriculum to make it interesting and relevant to quiet students so that they may be inspired to talk?

The evaluative climate describes the contextual conditions in which the public verbal space operates. The concept of public verbal space will be

developed in detail in the next subsection and the following subsection is concerned with the relevance of talking in this public verbal space.

(2) Public Verbal Space in the Classroom

The conceptualisation of public verbal space in classrooms reflects my geographic background and my attempts to make the ephemeral space in which talking takes place more 'concrete'. In attempting to conceptualise an auditory space in visual terms and naming it as public verbal space, I want to make the *finite* and *public* nature of classroom verbal space explicit. Chapter I has already explained the focus on public student-teacher interactions when using the term public verbal space, and the *public* and therefore risky nature of such space has already been discussed in some detail in this chapter. The *finite* nature of public verbal space refers to the temporal aspect of this space; there is only a finite amount of verbal space available during any one lesson and this is determined by how many minutes the lesson lasts for. The finite nature of public verbal space and the pattern of allocating one teacher per class, mean that there is a finite number of opportunities for individual students to take a share of public student-teacher interactions during any one lesson. A significant body of research showing which groups of students take up the greatest share of public verbal space, now exists (for a comprehensive review of the literature, see Sadker, Sadker and Klein, 1991). In this section, I will highlight the relevant research in order to show that the public verbal space of classrooms is gendered.

Spender (1982) has shown "that on average, teachers spend at least two-thirds of their time talking to their male students". Alton-Lee and Nuthall with Patrick (1993) and Newton (1988) have carried out research on student/teacher interactions at the intermediate and primary school levels in Aotearoa/ New Zealand. In one intermediate classroom Alton-Lee and Nuthall with Patrick (1993) found that "70 % of public child contributions were made by boys compared with 30 % by girls". Newton (1988) carried out research in four primary classrooms and found that on average: "31% of teacher-initiated interactions were with the girls and 69% were with the boys".

Kelly (1988) carried out a meta-analysis of 81 studies from the U.S.A., Australia, Britain, Canada and Sweden and found that on average: "teachers spend 44% of their time with girls, and 56% of their time with boys". Kelly (1988) goes on to say that "teachers are selecting boys more often than girls, or

at least not compensating for boys' tendency to self-select and demand attention" and estimated "that the average girl will end up with 30 hours less individual attention than the average boy" over the length of an individual's school career.

Kelly (1988) also analysed the studies for relationships with independent variables and found that:

gender differences in teacher-pupil interactions were similar in white and black ethnic groups, with the exception of criticism. Black girls got less criticism than black boys, but this imbalance was much more marked among white pupils... Girls received 42 % of the criticism in the non-white group, but only 33 % in the white group. Gender imbalances in instructional contacts were also more marked among white pupils than among blacks (p12).

working-class girls received a particularly small share of the teacher's attention, compared to working-class boys...Gender imbalances in instruction were greatest in the upper-middle-class group (p10).

girls in the six to nine age group got almost as much instruction as the boys, but thereafter the percentage of instruction which was directed at girls declined steadily with age (p10).

girls only received their fair share of the teacher's attention when they were a distinct minority, less than 40 % of the class (p10).

male teachers direct substantially less of their classroom interaction to girls than do female teachers (p18).

Kelly's (1988) findings were relevant to this research carried out in two seventh and two fifth form geography classrooms where gender, race, class, age, gender distribution and gender of the teacher were all variables that influenced the results. One of the women-focused curriculum interventions was about working-class Samoan women and it was taught by a male teacher to 7H (estimated ages: 17-18 years); female students represented 55 % of the total number of students in this class. The other women-focused lesson was about a 13 year old Bangladeshi woman from a working-class background; this lesson was taught to 5L (estimated ages: 15-16 years) where female students were 36 % of the total number of students. Perceptions of the women-focused curriculum interventions would have been influenced by each student's gender, race, class and sexuality.

Nairn (1991) carried out research in 37 geography classes in Christchurch; the teachers all knew that the gender distribution of student/teacher interactions was being studied. Similarly, the three teachers who participated in this research knew that the gender distribution of students' access to public verbal space was being studied. Kelly (1988) found

that even though "some of the training was fairly minimal...trained teachers managed to direct 49 % of their total classroom interactions at girls, compared to 44 % for untrained teachers". This finding suggests that the teachers' knowledge that gender issues were being studied (even though there was no formal training), may have increased the proportion of classroom interactions directed at female students, thus influencing the results in Nairn's (1991) research and in the present research. If the three teachers involved in the present study were consciously directing more of their attention at the female students during the observed lessons, it renders the results that are reported in Chapter IV more powerful. If in spite of conscious attempts to favour female students in our co-educational classrooms, male students continue to take up a far greater share of the public verbal space, it is clear that the goal of ensuring fair and safe access for all female and male students to practice verbal skills is difficult to achieve. The literature also indicates that there is a discrepancy between what teachers think is happening in their classrooms and what in fact is happening, and that feminist educators/researchers are not exempt from perpetrating inequities (Kelly, 1988; Newton, 1988; Alton-Lee and Densem, 1992).

Nairn (1991) showed that there were 10 classes where on average males participated in two-thirds (or more) of student/teacher interactions. There were 21 classes where males on average participated in 56% (or more) of student/teacher interactions. However, there were 5 classes where on average females participated in 56 % (or more) of student/teacher interactions; and there were 2 classes where on average females participated in two-thirds (or more) of student/teacher interactions (Nairn, 1991). The influence of the teachers' knowledge of what is being observed, on these results and the results of other studies requires further investigation. In contrast, Kelly (1988) found "no studies reporting more teacher interactions with girls than with boys". It was not clear from Kelly's meta-analysis whether any of the teachers in the 81 studies, were aware that the gender distribution of student/teacher interactions was being observed.

The key flaw in Spender's (1982), Newton's (1988), and Nairn's (1991) use of averages to describe female and male student/teacher interaction patterns is identified by Jones (1985, my emphasis) as their failure to take account of other power dynamics such as race and class so that "some girls *do* only have 'subordinate roles' available to them, even in a single-sex environment". In fact there is significant inequity *within* gender groups as well as between them" (Sadker, Sadker and Klein, 1991, my emphasis). The

use of averages ignores the student/teacher interaction patterns of individual female and male students and contributes to the invisibility of silent students. Most of the silent students are female students in co-educational classrooms (Krupnick, 4 June, 1992). The use of averages also hides the identities of the students who are silent and those who do the most talking, making practical actions for change impossible. In order to provide the public verbal space for the quiet female students to take part at least once in a public student-teacher interaction during one lesson, then the talkative male students must take part less.

It is clear from the research that female students as a group do not take up their fair share of the public verbal space in classrooms here in Aotearoa/New Zealand and elsewhere in the 'western' world. The role of talking in the public verbal space of classrooms and the power of silence will be discussed in the next two subsections.

(3) Talking in the Classroom

The importance of talking and the meaning of silence are cultural constructions that have gendered origins. Talking in public was and still is a male preserve; male and female students learn that this is the case from their experiences in the classroom (Alton-Lee and Nuthall with Patrick, 1993; Kelly, 1988; Nairn, 1991; Newton, 1988; Sadker, Sadker and Klein, 1991; Spender, 1982). I am arguing for female students to have fair access to opportunities for practising their public talking in the public verbal space of the classroom so that they have the verbal skills to compete effectively in labour and training markets. This approach has been criticized because it involves constructing the political goal as equality with men, the substitution of an equality agenda for a feminist one, and it can result in tokenism (Johnson, 1990). Implicit in this approach is the message that male public talking patterns are the "yardstick" by which female public talking patterns are measured and that the male way of talking is to be emulated. It means trying to improve female students' access in the existing system, without evaluating whether that system is good for female (or male) students (Dann, 1992). In fact, the political goal of equality with men will reinforce the status quo because the underlying assumption is that female students attempt to act like male students and the more successful female students are, the more likely they have been successful on male terms. Female students' achievement in the male system on male terms has contradictory and complex implications for girls and women. It may be empowering and provide access to status, money and

independence. At the same time, it may be disempowering because women are successful in a system that undervalues their gender.

In spite of these compelling arguments, education institutions cannot justify the continued dominance of the public verbal space of classrooms by particular male students. The teachers in these institutions must take the responsibility of ensuring that female students have opportunities to talk in the public verbal space and that these female students have the right to choose whether to take up the opportunity or not. Female students' access to opportunities for talking are important for five reasons.

Talking is central to the learning process because through talking we "remake knowledge for ourselves" (Barnes, 1976). "The more the learner is given the opportunity to 'think aloud', the more she can formulate explanations and interpretations, and evaluate her own knowledge" (Jones, 1985). However, it is important to point out that silence is not necessarily an obstacle to learning; in fact silent female and male students are often the high achievers academically: "overt pupil responses to teacher questions, was a weak variable having little effect on pupil achievement" (Hughes, 1973).

Secondly, Alton-Lee and Nuthall with Patrick (1993:30) have shown that the students who talk aloud in class have an influential role on what gets taught:

The boys' perspectives ... were twice as prominent in the enacted curriculum. .. If there is a systematic cultural bias favouring the participation of a particular group of children in the enacted curriculum then that groups' knowledge, experiences and cultural perspectives shape the curriculum content.

If who talks aloud shapes the curriculum content, then it is crucial that female students have equitable access to verbal space and to shaping the curriculum content so that:

their schooling offers them visions of the full spectrum of women's past and present lives - their history, [their geography], their achievements, political struggles. Such a gender-inclusive curriculum must not denigrate women's traditional achievements or see a male-lifestyle as the ideal. Rather it must portray honestly and critically, to children of both sexes, the problems which currently face New Zealanders - in race relations, gender relations, and economic self-sufficiency...(Middleton, 1989:93).

The third important function of talking in class is its relationship to the acquisition of new knowledge in the classroom. This has been theorised in detail by Alton-Lee and Nuthall with Patrick (1993); they have shown that students generate "knowledge constructs as they engage in the process of making meaning out of curriculum content". Female and male students

make "associative links" between new knowledge in the enacted curriculum and their prior knowledge, during the learning process. This is problematic for female students because their new knowledge and understandings are being shaped by the male focus of the official curriculum and by the male students' experiences and opinions that are articulated in the public verbal space. Male domination of the public verbal space means that female students have only a certain group's experiences to connect their new knowledge to. This process was so powerful that Mia, a female student involved in the study carried out by Alton-Lee and Nuthall with Patrick (1993:79-80), revealed her "unconscious identification with White males in the curriculum by using the pronoun 'us", to refer to herself as one of the White male colonists:

The consequences for the well-being of [students] who are not White and male are profound. Mia accommodated to the norm by identifying as a White male at the cost of her own cultural identity as a White (*Pakeha*) female...Maori girls are confronting bias against both their race and their gender.

Fourthly, talking aloud provides one way in which a teacher can check a student's understanding at that point in time, and correct any misunderstandings that have occurred; "regular positive teacher reactions to pupil responses facilitated pupil achievement significantly more than minimal teacher reactions" (Hughes, 1973).

Finally, female participation in the public verbal space of classrooms provides opportunities to practice talking in public, an important skill for girls and women to gain so that they can talk with confidence at job and training interviews, at the Department of Social Welfare, in their doctor's office, in their homes and in parliament.

However, female students cannot have fair access to the public verbal space of the classroom if at the same time the rules for male access to this space are left undisturbed; there have to be modifications in how much and in the way male students themselves talk (Spender, 1985). The crucial issue here is that if female students cease to be silent, male students cease to be dominant; "to some males this may seem unfair because it represents a *loss of rights*" (Spender, 1985) and these male students will resist any challenges to their power base. Classroom teachers will have to manage male students' resistance to modification of their language behaviour.

The single act of talking has the potential to be empowering in two ways: the provision of opportunities for female students to practise their verbal skills will also mean opportunities for female students to shape the

curriculum content of geography lessons at the same time. I have experienced my growing confidence to talk in a variety of public settings as empowering and this personal perspective has also shaped this research. I have associated talking with empowerment and this should be balanced by linking silence and power; in other words talking is not the only way to express personal power. Power dynamics in the classroom and the importance of agency will be explored in the next section.

(4) Power Dynamics in the Classroom

Female students in co-educational classrooms cannot be understood as simply located within one social position defined by their gender, and as more or less powerful, depending on their race, sexuality, and class. While these social relations (and their real physical conditions) most certainly determine the parameters of female students' experiences, within those boundaries female students' power and their sense of themselves is fragmented and variable (Jones, 1991). For example, a female student may be positioned as powerful within her group of friends who sit together and take up her share of the 'localised' private verbal space of peer discussion, *as well as* relatively powerless within the public physical and verbal space of the classroom.

Female students are powerful whenever they make their own decision to talk and not talk in the public verbal space of classrooms; agency is the key to understanding whether silence represents a powerful or powerless position (Weiler, 1988). For example, female students may resist "a curriculum that largely excludes or devalues their experience" (Alton-Lee and Densem, 1992) and resist appropriation of their ideas by remaining silent and outside the public verbal space; in these situations silence is powerful. However, if female students are silenced and disempowered by a curriculum that does not take account of women's traditional and non-traditional achievements, by the threat of being watched and judged, and by the disproportionate number of male students taking up a disproportionate amount of the finite public verbal space in classrooms, then this is an educational issue. The Commonwealth Schools Commission (1975:17-18) effectively makes the point that:

'sexist education' is a contradiction in terms; good education is necessarily non-sexist,... It is not a question of fastening broader responsibilities on the school. It is a question about whether or not it is an educational institution.

Theorising the effects of gender-biased curriculum on female students, must take account of two contradictory dimensions of schooling: firstly, schools as potential sites of empowerment:

...schools, while operating in their traditional function, do not simply reproduce sex-stereotypes or confirm girls in subordinate positions. Certainly they do that much of the time. But they have also long been a vehicle for women who wish to construct their own intellectual lives and careers (Gaskell, 1985:48).

Secondly, schools as sites of disempowerment; academic success may appear to 'advantage' particular girls, but:

...what are they achieving? - A male heritage? A perspective wherein the absence of women is usual? A derisory attitude to woman as 'other'? In effect they gain an education that not only undervalues their gender but also secures their participation in constructing and maintaining patriarchy...Their very achievement in a gender-biased curriculum may strengthen their collusion in their own as well as others' oppression (Alton-Lee and Densem, 1992:209).

Many female students' experiences of schooling are likely to be an amalgam of empowerment and disempowerment, to be contradictory, complex and variable.

The research is about exploring the power as well as the powerlessness of female students in the four geography classrooms, so that any liberatory strategies that are suggested by this research have evolved from the actual experiences of empowerment described by the female students in this study. These experiences of empowerment may have directly or indirectly resulted from the research, or may have occurred independently of the research. I consider it to be just as important to document female students' experiences of empowerment that they have achieved independently of the research, as well as the empowerment that they may have experienced as a result of the research. Female students who come up with their own liberatory strategies do not have to rely on anyone but themselves, to make their way in the world. These female students demonstrate that they are not passive victims of socialisation and do not have to depend on others to find ways of disrupting the limits placed on them.

CHAPTER III

METHODOLOGY

I. INTRODUCTION

(1) Methodology rationale

Methodology is considered in the broadest sense; it includes the conception of the research, the choice of techniques of data collection and the forms in which the research results are presented and disseminated (Duelli Klein, 1983). Discussion of the conception of this research is initiated in Chapter I and developed in Chapter II. This chapter is concerned with the techniques and reasons for the techniques chosen for data collection; these will be considered in relation to the respective research phases. The final section of this chapter, will discuss the rationale for the methods adopted in the presentation of the 'results', in order to prepare the ground for the subsequent chapters. Some dissemination has already taken place; this was explained in the previous chapter and strategies presented as Appendix 1.

The methodology of this research has combined elements of feminist and action research methodologies, as well as quantitative and qualitative methods of data collection. It is important at this point to establish the broad parameters of my research approach; this will be done by identifying the key elements of feminist and action research methodologies that have been adopted in this research.

The intersection of feminist and action research paradigms is most clearly evident in Lather's (1991) definition of empowering research; such research operates "out of a critical, praxis-oriented paradigm concerned with both producing emancipatory knowledge and empowering the researched". More specifically, this research aims to produce knowledge that enfranchises female students in future secondary geography classrooms, and to empower the quiet female students who were interviewed on a one-to-one basis. Therefore, in a research project that focuses on the female and male students with the least access to the public verbal space of their classroom, the method adopted for gathering data was a method most likely to provide a relatively private verbal space in which each individual students' words were accorded space, safety and primacy.

Student experience is the fundamental medium of culture, agency, and identity
 SEE ERRATAformation and must be given pre-eminence in emancipatory curriculum. It is therefore
 SEE ERRATAimperative that critical educators learn how to understand, affirm, and analyse
 such experience (Giroux and McLaren, 1992:24).

The goal of producing emancipatory knowledge means that the research must move beyond description, analysis and critique of the status quo, to a substantive vision of what should exist for female students in secondary geography classrooms (Bunch, 1983; Giroux and McLaren, 1992). My vision is of a geography curriculum that is designed with female students' needs and interests in mind, and that the time spent on such a curriculum is proportional to the time spent on a curriculum written with male students' needs in mind. The research methodology is therefore centred around a small-scale intervention of two women-focused lessons and the exploration of female and male students' perceptions of these lessons. The female students' evaluations of this intervention are considered in the most detail in an attempt to establish whether their experiences of women-focused content were empowering.

The adoption of both quantitative and qualitative methods of data collection combines the strengths of the respective methods, and by implication compensates for the inherent 'weaknesses' of each method. Jayaratne (1981) has argued that feminists can use the "power of quantitative research to our advantage to change public or political opinion in support of feminist goals". Jayaratne attributes the 'power' of quantitative research to its greater potential to influence policy makers and decision makers who are more responsive to generalized data about a large group of individuals, than they are to qualitative data about a few individuals. Nevertheless, the qualitative methods of data collection and analysis are given more space and greater priority in this research, because they are based;

on the notion of context sensitivity. What sets qualitative research apart...is the belief that the particular physical, historical, material, and social environment in which [students, teachers and researchers] find themselves has a great bearing on what they think and how they act (Lee Smith, 1987:175).

It is important that I be explicit about the positionality which has shaped my selection of particular methodologies for this research, and has shaped the observing, the interviewing, the writing of the two women-focused lessons, the writing of this thesis, and the dissemination of the research. I am a 'teacher-turned-researcher' carrying out research in other teachers' classrooms; my teaching background explains the "practical, classroom based orientation...[in order to find] the means of challenging

educational inequalities 'from the inside'" (Weiner, 1987). More specifically, as a feminist geography teacher, my concern about female students' access to the public verbal space of the classroom is combined with my concern about the male-focus of the current secondary geography curriculum. My background as a teacher facilitated my access to schools and classrooms, and the ease with which I moved about in the respective schools and classrooms. The process of negotiating entry to the schools and classrooms will be explained in the next section

(2) Negotiation of entry

One of the three teachers in the current research, had been involved in the pilot study and had offered to be part of ongoing research; the other two teachers had expressed an interest in being involved in the planned research. Nevertheless, there is a tension for teachers between saying "yes" and opening themselves up for scrutiny and saying "no" and being viewed as having something to hide; the teacher is in theory a "volunteer". I will never *really* know to what degree the act of observation engendered different behaviours. Nevertheless, if the teacher concerned reflected on the interaction patterns between herself or himself and their students for the duration of the research then part of the purpose of the research will have been achieved.

The teachers' agreement represented the first step; I then obtained permission from the principals of the two schools. The third step involved my going to each of the four geography classes in person, to explain the research to the students. At the same time, the students were provided with a written explanation (on the school letterhead) of the research; this was primarily for their own reference, but also to take home to their parents/caregivers. The written explanation was signed by myself and the relevant principal, and included clear guidelines about ringing the principal or myself if there were any concerns about the proposed research. There were no concerns expressed to the respective teachers, principals, or to myself. Although each student was not individually asked for their permission to take part in the research, they were informed about the research and about the means for finding out more or for refusing to take part. The students who were invited to be interviewed gave their permission by accepting; refusal was accepted without any pressure. As has already been stated in an earlier footnote, the identities of all the students, teachers and schools involved in

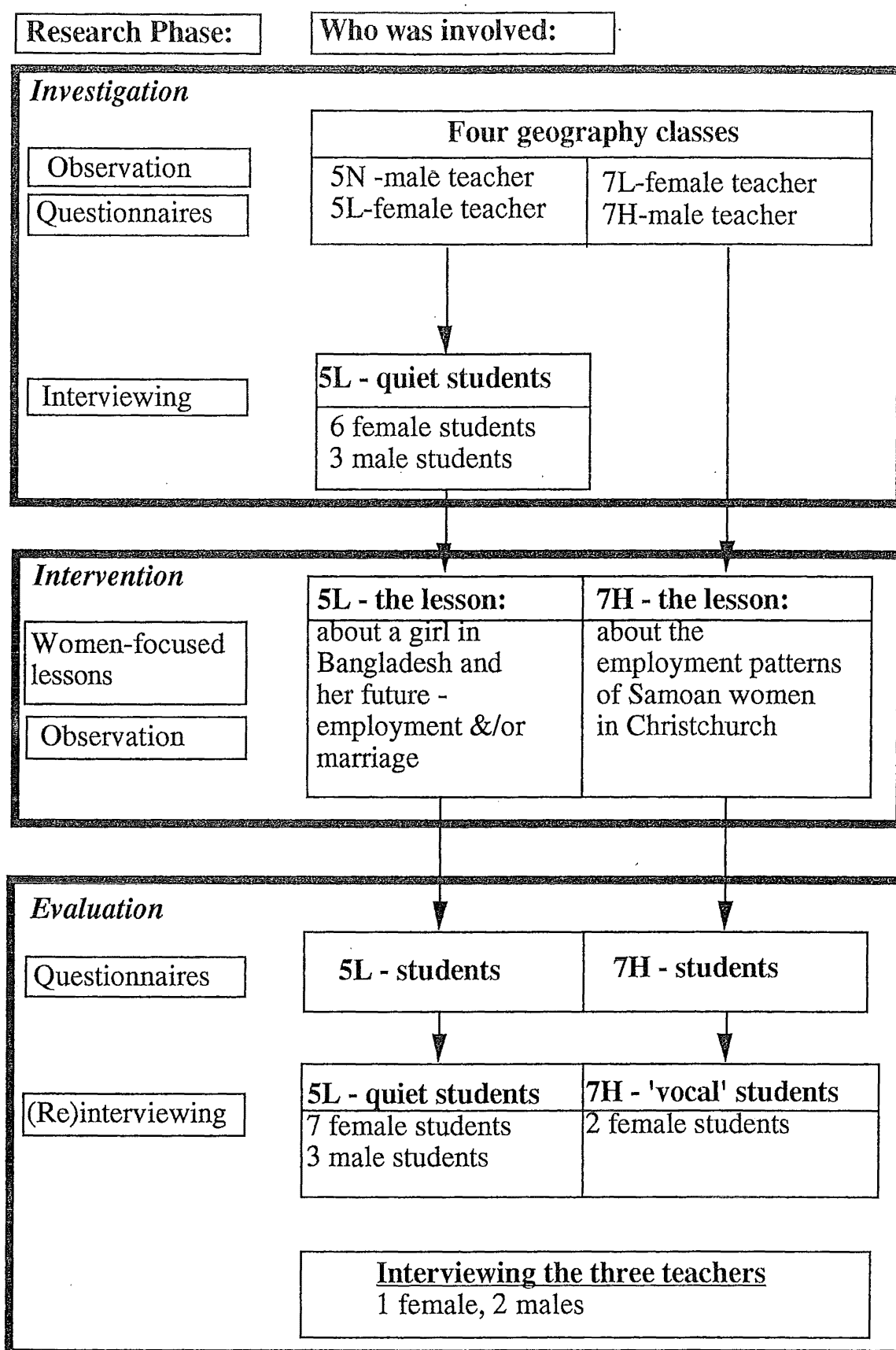
the research, are protected by the use of fictional names; these names were chosen by the research participants themselves or by me.

(3) The research phases

The research process incorporated three distinct phases - *investigation*, *intervention* and *evaluation* (see Figure 4). The *investigation* phase was concerned with collecting information about individual students' participation in the public verbal spaces of four secondary geography classrooms. This information was collected for two purposes; firstly, to describe and explain individual students' public participation patterns and secondly, to identify the students who seldom participated in the public verbal space of the respective classrooms, in order to invite these students to be interviewed.

The *intervention* phase was concerned with the introduction of a women-focused curriculum intervention in two (of the four) geography classes, and the observation of individual students' public participation patterns during these interventions. The *evaluation phase* was concerned with gathering information about the students' perceptions of their own participation during the lesson and of the content of the women-focused lessons, in order to evaluate the women-focused curriculum interventions from individual female and male students' points of view. Information was also gathered about the relevant classroom teachers' perceptions of public participation patterns during the curriculum interventions and about the teachers' experiences of the research process.

Figure 4. The research design.



The *investigation* phase was concerned initially with the observations of four different geography classes in two different co-educational schools in

the Christchurch area. 5L and 7L were taught by the same teacher - Ms Lapresle; 5N was taught by Mr North and 7H by Mr Hughes (the classes have been coded according to their respective teachers' fictional surname). The observation data identified the quiet students in each class; nine students from 5L accepted the invitation to be interviewed on a one-to-one basis. The curriculum *intervention* phase was introduced in two of the four geography classes - 5L and 7H; the respective women-focused lessons were taught by the classroom teacher and were observed by myself - the researcher. The *evaluation* phase was carried out with 5L's and 7H's students after the two women-focused lessons were taught. The initial group of nine students from 5L were re-interviewed and this group was joined by another female student who volunteered to be interviewed. Two relatively 'vocal' students from 7H were interviewed for the first time to provide a small comparative group. Finally, all three geography teachers were interviewed about their perceptions of the research; in addition, Ms Lapresle and Mr Hughes were asked for their opinions about the respective women-focused lessons.

Figure 4 also presents diagrammatically, the shape of this chapter; the subsequent sections will describe the methodology of each phase of the research - *investigation*, *intervention* and *evaluation*, in that order.

II. THE INVESTIGATION PHASE - CLASSROOM OBSERVATIONS

The first stage of the *investigation* phase involved classroom observations as a means of collecting quantitative data. The focus on the public participation patterns of individuals was a key element because it avoided the use of averages about female and male participation patterns, which have contributed to the invisibility of silent female and male students. The quantitative data were collected:

- 1) to 'measure' the public participation rate of each student and thus provide a 'measure' of the inequities *within* as well as *between* the gender groups.
- 2) to identify the female and male students who seldom took part in public student-teacher interactions.
- 3) to provide a baseline of participation data which could be compared with public participation rates during the curriculum intervention.

The observation schedule was developed to 'measure' public participation by counting public student-teacher interactions. An interaction is a two-way process between the student and the teacher; it involves both the initiation of an interaction and the response to that interaction. Verbal

interactions that were initiated by the teacher and/or by the student, and that had a clear verbal or non-verbal response were counted. The definition of a public student-teacher interaction was an interaction that was audible to the observer and, by implication, audible to at least one other member of the classroom.

The observation schedule listed each student by their first name alphabetically and each student's public interaction with the teacher was recorded according to one of the six categories listed in Figure 5.

Figure 5. The categories of public student-teacher interactions.

1) teacher calling on student who volunteers

student volunteers by putting their hand up (or says yes to request for a volunteer) and teacher calls on that student by name, by pointing, or by nodding in their direction.

2) teacher calling on student who does not volunteer

teacher nominates a student by name, by pointing, by nodding in student's direction, and asks them to answer a question or make a comment.

3) teacher naming student concerning behaviour

teacher names a student in order to gain their attention and/or stop or encourage a particular form of behaviour.

4) teacher acknowledges (positively or negatively) a call-out

student calls out the answer/makes a comment without being asked by the teacher and the teacher acknowledges the call-out positively or negatively. A call-out is audible to the whole class.

5) student calling on teacher for information, comment, etc.

an individual student calls on the teacher for information/comment; this may occur in the whole class forum or on a one-to-one basis at student's or teacher's desk.

6) comments on other interactions/events between student and teacher

for example, a student volunteers (puts their hand up) often but is not acknowledged, a student arrives late to class or leaves early, and so on.

Each observer had a seating plan to facilitate the accurate recording of public student-teacher interactions beside the appropriate student's name. Nevertheless, it is important to be explicit about the complexities of one (or two) observers observing the public student-teacher interactions of up to 30 individual students during an hour-long period. A total of 24 observations were carried out by myself - the researcher, and seven (29 %) of these were co-observed independently by one other observer to obtain a measure of the reliability of the data collected. The co-observers were not secondary geography teachers; two of the co-observers were university students and this factor was one of the strengths that they brought to the observation exercise. The co-observers' perceptions provided an alternative perspective of a context that was familiar to me and their presence "in itself encouraged me to view classroom processes with a sharper eye" (K.M. Nairn, 1st April, 1993).

The observation data were supplemented by a written journal as a "comprehensive and systematic attempt at writing to clarify ideas and experiences; [as] a document written with the intent to return to it, and to learn through interpretation of the writing" (Holly and McLoughlin, 1989). Entries were made in the journal following each classroom observation and each of the interviews with the students.

In three of the classes, I sat at the back of the room to carry out the observations. One advantage was that my presence was relatively unobtrusive because the students tended to face the front of the classroom and away from me. One disadvantage was that I could not see students' facial expressions, for example, I may have incorrectly 'labelled' a student as not volunteering when in fact their facial expression had indicated otherwise. In the fourth class, the available seating meant that I observed from the front of the room. Students could observe me observing them; for the students in close proximity, this proved to be distracting and a temptation to 'perform' and be recorded on the observation schedule. This was clearly a disadvantage and I relocated my seating position. One advantage was my ability to see the students' faces clearly and therefore see the non-verbal component of their responses.

My aim was to visit each class once per week during the observation phase. I expected that my presence would alter the classroom dynamics particularly during the early visits but hoped that the longer that I spent in the observational setting the more likely I would become 'part of the furniture' thus having less effect on the teacher and students. But Blease (1983) has asked the pertinent question: "how long is long enough?" This researcher goes on to point out that many students found it difficult to forget the observer sitting at the back of the room, and although this diminished over time, "they never felt free of it". The three teachers of the four classes reported differing outcomes of the presence of one or more observers in their classrooms over time:

... they asked the odd Monday when you weren't there, whether you were coming that day (Mr North, teacher of 5N).

Well I sensed that they didn't really mind, we have had a number of visitors in the school I think, not only you but other people sitting at the back of the room so I think the 7th form probably are quite used to it...I don't think it really made too much difference. The fact that you came for quite a long time, I think you became part of the furniture in some ways... (Mr Hughes, teacher of 7H).

I think that initially it definitely altered their behaviour...especially when you brought somebody else along...I think they played to the gallery a bit, not all of them but certainly there were a few people like [names one male student, who did]...I

think that after a couple of weeks they just totally relaxed and it was like you were just part of the furniture...(Ms Lapresle, teacher of 5L).

The classes appeared to get used to me over a period of time but the introduction of a second observer to establish a measure of reliability renewed the initial dynamics of novelty and curiosity. The co-observers did not come regularly enough to become 'part of the furniture'. The overall aim was to minimise disruption to the classes and for the observers to be as unobtrusive as possible. This was the rationale for not audio-taping or video-taping the classes in progress; the experience gained from the pilot study showed that the process of setting up audio-taping equipment as the lesson was starting and the associated self-consciousness of students in the class about being recorded were problems that far outweighed the benefits of obtaining an audio-recording of the lesson (Nairn, 1992).

After two months of observations of individual students in four geography classrooms, it was possible to identify which students seldom took part in the public verbal space of the classroom. A student who did not take part at all in a public student-teacher interaction, was considered to be a silent student during that lesson. Students who took part in two or less public student-teacher interactions per observed lesson were considered to be quiet students.

The observation data and the journal entries 'represented' my (the researcher's) perspectives of the public verbal space of each of the four classrooms, based on observations of four to seven lessons in each classroom. I was an intermittent observer as well as a 'teacher' observing students; I was 'inside' the public verbal space of each classroom at the time of observation but I was really an 'outsider' to the internal workings of the lived peer culture of the classroom and to the totality of each students' experience of the public verbal space, week by week, month by month.

III. THE INVESTIGATION PHASE - INTERVIEWING THE STUDENTS

(1) Rationale for interviewing the quiet students

Assessment of classroom interaction through the students' perceptions is of high ecological validity and it appeals to the common sense, since they are the targets of their teacher's behaviour, and their (subjective) experience is what really counts. Moreover, students' perceptions are based on long accumulated experience under natural conditions, less likely to be distorted as perceptions of outside observers might be (Babad, 1990:1).

The quiet students' perceptions of the public verbal space in their geography classroom, were particularly important for two reasons. Firstly, it was imperative that I find out about the perspectives of the students that I was most interested in developing strategies for. Secondly, the perceptions of the students who seldom talk in public, who are likely to observe and listen more than their 'vocal' counterparts do, promise to be "of high ecological validity" in exploring public verbal space in depth (Babad, 1990). The method that would provide space, privacy, and my undivided attention to the quiet students' perceptions was the one-to-one interview.

Interviewing the quiet students on a one-to-one basis, provided a space in which they could talk without the competition inherent in the public forum of the classroom, with a researcher who was specifically interested in their perspectives of how much they took part in class discussion, what they thought of geography, and their choice of seating position. The one-to-one interview also facilitated the opportunity for students to formulate and express their own ideas without the risk of presenting ideas in front of their peer group. This is not to discount that the students may have experienced risk in sharing information with a teacher-researcher.

(2) The invitation

I decided to interview ten quiet students from one class - 5L - as a 'trial' of the process, before attempting to interview students from the remaining three classes. The selection was achieved by a two-step process:

- 1) the analysis of four observations showed that there were six female students (54 % of the total number of female students) and four male students (21 % of the total number of male students) who were silent or quiet during at least three of the four observations.
- 2) this list of potential interviewees was then compared with the teacher's perceptions of silent students, as a check for omissions and/or inappropriate listings.

I then approached each of the ten during the course of one lesson to invite them to be interviewed. This approach was direct, personal and allowed for students to ask questions before making their decision. The direct approach meant that only the students that I was interested in interviewing were invited and I made it clear that it was their decision to accept or decline the invitation.

There were three key elements in the invitation process that should be made explicit. Firstly, I had been present in the students' classroom over a period of two months and I had already interacted with some of the group of ten. Secondly, I squatted down as I spoke to each of the ten students so that I was at a similar level to them in an attempt to reduce the power differential between myself (the teacher-researcher) and each of the ten. Thirdly, I said that I was interested in interviewing them and in their perspectives; I did not say that I had identified them as silent or quiet students and wanted to interview them on that basis, because I did not want to openly 'label' these students and preempt their own perspectives of how much they took part in the public forum of the classroom. All six female students and three of the four male students accepted the invitation. My journal entry following the lesson during which the invitations were made, said:

I felt really positive about the responses - the girls in particular seemed interested, even enthusiastic about being interviewed, the boys less so - more like 'bland' agreement especially from [two of the three male students] (K. M. Nairn, 27th May, 1993).

(3) The logistics of interviewing the students

The interviews took place during geography classtime. This facilitated the ease of the interview process significantly; students were not giving up their 'own time' and this lifted one form of time constraint from the interview, although the constraint of the hour-long geography period remained. In addition, interviewing during classtime gave an implicit value to the research, it was considered to be important enough by the teacher Ms Lapresle, to allow students to be 'absent' from class to be interviewed. The students appeared to enjoy their legitimate reason for being absent from class.

The interviews took place in one of the school's reading rooms which was private and relatively quiet; we were seldom interrupted by others. A hand-held tape recorder was used to record each interview and each student was shown how to turn it off if they wished to do so at any point. Questions written on a piece of paper were used as cues for my inquiry, with other questions emerging in response to the information each student gave; in other words the interviews were semi-structured.

Before the taping and the formal interview began, the 'plan' of the interview was clarified for each student. I explained that what the student said in the interview would be confidential, and emphasised that it would

not be shared with their geography teacher. I explained that the taped interview would be transcribed by a typist who would also respect the confidential nature of the students' information, and that each student would receive a copy of their transcribed interview to check and to keep. It was made clear that they could stop the tape and/or the interview at any point in time, and that they could alter or delete sections of what they had said in the interview from the written transcription.

(4) Teachers interviewing students - the issue of power

As a teacher, I have experience of talking with students in a wide range of situations and this was useful for the interviews. I was a teacher from 'outside' of the respective schools and the students may have thought that there was less risk in talking to someone relatively anonymous. Nevertheless, teachers interviewing students is problematic because of the power differential. One way in which I attempted to minimise the power differences between myself and each of the students was in the organisation of the physical layout of the interview room.

Henley (1977) referred to research about the gender patterns of seating arrangements which showed that females were more likely than males to choose a side-by-side seating arrangement. Therefore, I set up the chairs alongside each other in front of a table on which the tape recorder was placed. The chairs were angled towards each other so that it was possible for direct eye contact to occur and for the facial expressions of both participants to be visible to the other, so that it was possible for me to communicate 'non-verbally' my active engagement in the interview process.

The other way in which I attempted to minimise the power differences was in the (body) language that I used; I wanted to convey my belief that each of these students were the 'real experts' on the public verbal space of their classroom and on the subject of geography, and I was here to listen to them.

When [students] are acknowledged as experts on their own learning, they articulate very well the connections between life experiences [and] practice...conversation uncovers knowledge which may not be evident within other paradigms or structural frames (Collay, 1989:19).

More specifically, I did not interrupt students even when they had misunderstood the question, so that they could complete their train of thought. I leant slightly forward in a posture of active listening, and used open encouragers such as "yes, and...", "anything else?" to contribute to the

flow of the interview. The opening questions of the interview were more general and about geography, so that the students could gain some confidence in answering these questions before I introduced the more personal and in depth questions about the students themselves and about their perceptions of other students. At the end of the interview, I asked for suggestions to improve the interview procedure, as one technique for discovering ways in which I could make the interview experience more comfortable. Individual students' experiences of this interview process are considered in detail in Chapter VIII.

(5) The interview as constructed text

The oral language of the interview is constituted as a written text by the acts of transcription and subsequent quoting in this thesis. The students' accounts, the teachers' accounts and my account of the public verbal space of geography classrooms "*can only be constructions, made up from the language, meanings and ideas historically available to us, the 'I'*", in this country at this point in time (Jones, 1992, original emphasis). One of the stated methodological goals is to give the quiet students' perceptions primacy in the act of listening and in the act of reporting; what this means is giving their spoken words primacy in the form of a written text constructed by me. The students' and my constructions of their respective realities are shaped by our gender, race, class, sexuality, age, our prior education experience and so on. Therefore, the writing (and reading) of these partial and constructed texts must be 'context sensitive'.

Language has the potential to cloud the lens through which we 'view' what the students have to say about their realities. However, steps have been taken to remove as much cloudiness as possible from the lens so that what the students had to say in the interviews can be considered as valid representations of their realities. I was concerned with exploring what *seemed* real to each of the students, rather than with proving what *was* real. A checking process was adopted as one method of 'clearing the lens'; each student checked the transcription(s) of their interview(s). This was an important element of protecting each student's rights to their own words; they exercised the choice about the words that remained, the words that needed to be changed, and the words to be deleted. This same process also facilitated the checking of the students' intended meaning (at their or my initiation) because they had the opportunity to clarify what they meant at the beginning of the second round of interviews. The checking process was

facilitated after both the first and second rounds of interviews. The clarification of meaning process applied to the first interview, because the second interview provided the opportunity to do this in detail. The final step in making the lens through which we (the writer and the reader) view what the students say about their realities, is the extensive use of their words throughout the thesis in an effort to create a "many-voiced discourse as opposed to exhortations of authority..." (Lather, 1991).

(6) The interview

The questions in the interview were designed and trialled with a female student from a different school. The questions were broadly concerned with each student's perception of the geography curriculum, of the public verbal space of their geography (and other classrooms), of the evaluative climate in the geography classroom, and with talking 'outside' of the classroom. (See Appendix 2, for a copy of the interview questions for the first round of interviews). Each student's perception of how much they took part in *class discussion* was used as a 'measure' of how much they took part in *public verbal space* of the geography classroom. The language of 'how much do you take part in class discussion' seemed to be more accessible than 'how much do you participate in public student-teacher interactions'.

(7) The questionnaire

The students who were not interviewed in 5L and all of the students in 7H, were asked to complete a written questionnaire with the key questions from the interview schedule on it (see Appendix 3). This meant that all of the students in 5L and 7H, had provided information about their perceptions of geography, of the public verbal space and of the evaluative climate of their respective classrooms, in either a verbal or written format. This meant that considerable information was collected about the researcher's and students' perspectives, prior to the introduction of the women-focused curriculum intervention.

IV. THE INTERVENTION PHASE - THE WOMEN-FOCUSED LESSON

(1) Rationale for the intervention of a women-focused lesson

The role of talking in the learning process has already been detailed in Chapter II. However, it is not a simple matter of adopting strategies (see Sadker and Sadker, 1993) to provide more opportunities for quiet female students to talk. These strategies *alone* are problematic if the current geography curriculum remains unchanged - "why should girls actively participate in a curriculum that largely excludes or devalues their experience?" (Alton-Lee and Densem, 1992). Hence the formulation of a women-focused lesson as one strategy for *encouraging* female students', particularly quiet female students', participation in the public verbal space of geography classrooms.

(2) The women-focused lessons

The two women-focused lessons were written to 'fit' into the *Prescribed Common Topics* being taught during Term 2. In the case of 7H, the women-focused lesson was about Samoan women's employment patterns in Christchurch, and this was designed to 'fit' into the *Prescribed Common Topic: Cultural Processes - Migration* (see Figure 6). This lesson had been trialled and taught by the researcher during the pilot study (Nairn, 1992) but was taught by Mr Hughes in the current research. In the case of 5L, the women-focused lesson was about the dilemmas facing a young woman in Bangladesh and this was written to 'fit' into the *Prescribed Common Topic: Population Studies in Monsoon Asia*; it was taught by Ms Lapresle (see Figure 7).

The women-focused lesson on Samoan women was based on original research carried out in Christchurch by Lerner (1989). The women-focused lesson about the young Bangladeshi woman was based around a video called *The Price of Marriage* from the television series *A Woman's World* (New Internationalist, circa 1986). Both lessons were written by me after initial consultation with the two teachers; these lessons were explained to the respective teachers several days before they were to be taught. The women-focused lessons were not announced as such to the respective classes because the research was concerned with exploring the students' perceptions of the lessons without specific prior framing. Both teachers explained the links of the women-focused lessons with previous lessons in general terms so that

students had a sense of the women-focused lessons contributing to the units of work in progress.

(3) Was the 'women-focused video' really women-focused?

The search for and the development of appropriate women-focused content is time-consuming (McBride, 1993). I have argued the importance of women-focused visual resources for challenging students' and teachers' mental pictures of farmers, miners, geologists, planners and other 'people' that they may meet in the geography curriculum, in Chapter II. The video *The Price of Marriage* (New Internationalist, circa 1986), was selected as the central component of 5L's women-focused lesson, on the basis of that rationale.

Sadker and Sadker (1982) have identified six different forms of bias to look for when analysing curriculum materials for sex bias; the two most relevant to the analysis of the video *The Price of Marriage* (New Internationalist, circa 1986) were concerned with the (in)visibility and the stereotyping of women. Stereotyping was explored using questions (1) and (2), and invisibility was explored via question (3) during my analysis of the video.

(1) who is the narrator?

(2) what are the roles of the females and males?

(3) what are the total number of mentions/depictions of females and males?

The Price of Marriage (New Internationalist, circa 1986) was about a young Bangladeshi woman called Daslima who is the narrator. She takes up several roles; she is the eldest daughter who must take responsibility for contributing to the family income when her brother becomes ill. Daslima's 'choice' is to marry her uncle's friend Ginovanni in return for Ginovanni's contributions towards buying her brother's medicine, or to work as a maid at "the big house". These are all relatively powerless positions. Nevertheless, Daslima's 'final' position in the video is a powerful and independent one; she makes the decision to work at "the big house" and therefore postpone the prospect of marriage for another year. Daslima's mother is supportive of this decision. The analysis of the video involved counting the number of females and males in each frame at two-minute intervals; the results showed that overall, the visual aspects of the video were not women-focused. In fact, over a total of 11 frames, females were 45 % and males were 55 % of the people shown on the screen.

(4) The cultural bias of resources, researchers, teachers and students

There is potential for cultural bias during each of the four 'steps' involved in developing and teaching women-focused lessons. Finding a culturally appropriate women-focused resource is just one step towards teaching women-focused lessons. The next step involves the design of the lesson's activities; yet these activities do not necessarily guarantee "the desired learning experiences" (for example, requiring students to write lists about the expectations of girls in Bangladesh alongside the expectations of girls in Aotearoa/New Zealand, will not guarantee that all students think critically about the issues involved) (Brophy and Alleman, 1991).

The first two steps were carried out by myself, the researcher, and my cultural bias is implicated in the selection of resources and the design of the two women-focused lessons. The third step was the interpretation and teaching of the women-focused lessons by the classroom teachers. The 'final' step involved the students who were on the receiving end of the women-focused lessons and their respective understandings and misunderstandings. Therefore, there were a number of points in the process of developing and teaching the women-focused lessons, where intentions and outcomes for some students 'matched' and for others 'mis-matched'. In other words, some students achieved understandings without 'obvious' gender and cultural bias, while other students' understandings were gender and/or culturally biased. This will be discussed further in Chapter VII.

Figure 6. The women-focused lesson plan for 7H.

Migration and Female Labour: Samoan Women in Christchurch.

(a) Objectives - what the students are expected to learn:

- (1) That labour migration from the Pacific Islands to Aotearoa/New Zealand has some similarities to labour migration from Southern Europe and Northern Africa to Western Europe (this had already been studied in the class).
- (2) That the paid and unpaid working patterns of migrant Samoan women were distinctive. Migrant Samoan women have higher labour force participation and a greater tendency to work overtime and permanent nightshift.

(b) The lesson plan:

- (1) Brainstorm - students are asked to suggest reasons why Samoan women migrate to Aotearoa/New Zealand.
- (2) The students are asked to talk in pairs about their definitions of work and volunteers are asked to contribute their definitions. The students are then asked to distinguish between full-time and part-time paid work; these defining processes are intended to generate discussion.
- (3) The students are asked to analyse the overhead transparency (OHT) on labour force participation and to suggest reasons why Samoan-born women have the highest participation rates. This was followed by a comparison of two age-sex pyramids: one for Island Born Samoans and one for New Zealand Born Samoans; the students are asked to explain why the two pyramids were different.
- (4) The students are asked to copy down the following information as a summary of the interviews with Samoan women (Larner, 1989):
 - Island born Samoan women have a greater tendency to work overtime
 - very few New Zealand born Samoan women work overtime
 - Samoan women have a tendency to work permanent nightshift
 - when both partners are in paid work, the woman works nightshift
- (5) This is information on general patterns. The next activity provides opportunities for students to link these general patterns with their implications for individual Samoan women, and to use valuing skills that include "sensitivity to the values, feelings and needs of others ..."

(Syllabus for Schools-Geography, 1990:7).
The task is to write a 24 hour timetable for a Samoan woman who is employed on a production line for the nightshift, who has three children aged 3, 7, and 9, and a husband who works in paid work during the day.

The aim of the activity is to encourage "sensitivity" to a Samoan woman's position as she worked nightshift in paid work followed by a day of juggling childcare and domestic work with getting some sleep. This task is followed by two questions to tease out the implications of the timetable each student has written:

- Q 1) How much time does she get to sleep? Is it interrupted?
- Q 2) How would you feel about this kind of timetable?

Figure 7. The women-focused lesson for 5L.

The Price of Marriage: Daslima's decision.

(a) Objectives - what the students are expected to learn:

- (1) To show students how their perspectives of Daslima's life are shaped by their culture and lifestyle here in Aotearoa/New Zealand; just as Daslima may consider some of the ways of doing things in Aotearoa/New Zealand strange from her perspective as a young woman growing up in Bangladesh.
- (2) To identify the Important Geographic Idea: 6.2. "Each society perceives and interprets its own and other environments through the perspective of its own culture" (Syllabus for Schools - Geography, 1990:25).

(b) The lesson plan:

- (1) The students are given a brief introduction explaining that they are about to see a video about a young woman called Daslima, and the decisions she has to make. They are then told to listen to the story carefully and be prepared to say what they thought the main message is, after they have watched the video. The class watches the video *The Price of Marriage*.
- (2) The students are asked to write down what they consider to be the main message (or the main idea) from the video, and then, in pairs, to explain why they consider this to be the main message.
- (3) Next, the turn-taking method is used so that each students can say what they consider to be the main message, to the whole class.
- (4) The students are asked to write down in column form, the expectations of young women in Aotearoa/New Zealand and in Bangladesh, and then to decide which are positive and negative expectations, putting a positive symbol (+) or a negative symbol (-) by each expectation on their list.
- (5) The students are asked to write two timetables in column form, one for themselves and one for Daslima, and then to write about the differences and similarities between the two.

Both lessons adopted the pedagogical principle of starting with the students' opinions and exploring their prior knowledge, before introducing new content. The content was reinforced by providing activities towards the end of each lesson that encouraged students to consider the practical elements of one Samoan woman's life and of one Bangladeshi woman's life. The issues for women of getting enough sleep and whether to marry or not, are so familiar that they become invisible. The choice of content and associated activities represented a conscious decision to make the 'everyday' of women's lives visible and important. The realms of women's unpaid and paid work

were made visible in both lessons. Marriage and 'romance' were made visible for critical reflection in 5L's lesson.

Both lessons were observed by myself - the researcher, using the same observation schedule that was used during the *investigation* phase so that the data about public student-teacher interactions during the *intervention* could be compared to the base-line data already collected. My impressions of the teachers' interpretations of and the students' responses to the respective lessons, were written up in my journal after the lesson.

V. THE EVALUATION PHASE

(1) The student questionnaire

A questionnaire asking students for their perspectives of the content and of their participation patterns during the women-focused lessons, was administered the day after the lessons took place. The questionnaire included open-ended questions as well as two likert scales for 'measuring' the relative degrees of change in public participation patterns and the level of importance accorded to the content (see Appendix 4). The method of collecting information via a written questionnaire, was utilised as the most effective means of collecting every student's perception of the women-focused lessons the day after the event, in a relatively short time frame.

During the interview process following the *intervention*, questions about the interviewed students' completed questionnaires and about their written work during the lessons were incorporated into the interview. This was done as a means of checking the students' intended meaning of their written words in both their questionnaire responses and their responses to the lessons' activities.

(2) (Re)Interviewing the students

The nine students from 5L were re-interviewed for three reasons:

- 1) to interview the quiet students *before* (first interview) and *after* (second interview) the women-focused curriculum *intervention*.
- 2) to establish a level of trust that would facilitate a more relaxed set of interviews in the second round.
- 3) to provide an opportunity to ask students for clarification of their intended meaning in the transcription of the first interview.

A personalised interview was written for each student for the second interview, to explore the following:

- (1) the transcript of their first interview
- (2) the women-focused lesson
- (3) the completed questionnaire about the women-focused lesson
- (4) the written responses to the lesson's activities
- (5) the drawings of geographers
- (6) Geography Awareness Week
- (7) the interview process.

During this second round of interviews another female student (Jessica) from 5L, was interviewed because she had expressed an interest in being part of the interview process. Four of the initial group of six quiet female students sat together in one group and Jessica was the only one from the group that had not been selected to be interviewed; therefore, it seemed appropriate to include her in the interview process. This gave a final group of ten students - seven female and three male students - who were interviewed on a one-to-one basis from 5L.

Two female students and one male student who were all relatively 'vocal' in the public verbal space of 7H were invited to be interviewed at this point in the research, to provide a comparative group as well as three more detailed perspectives of 7H's women-focused lesson. The students were invited in the same way as the students from 5L were. All three students accepted the invitation; however, the male student became ill and was not available for interviewing. The same interview process as the one used with 5L, was followed. The notable differences were that the interviews were carried out in the students' 'own time' (during the students' non-contact periods) in the school librarian's office.

(3) Interviewing the teachers

The three teachers who were involved in the research process were all interviewed on a one-to-one basis at the end of the research, to gain their perspectives of the research, the role of class discussion in geography and future directions for research in geography. In the case of the two teachers who taught 5L and 7H where the women-focused curriculum interventions were introduced, they were specifically asked about the lesson and the students' public participation patterns during the lesson. The interviewing of the teachers provided a third important source of data on which students took part in public student-teacher interactions and which students did not, as well as on the women-focused curriculum interventions.

VI. THE PRESENTATION OF 'THE RESULTS'

There are five chapters concerned with substantive 'results' and they have been organised with three guiding principles in mind; these will be made explicit at this point to prepare the ground for the 'journey' ahead. Firstly, the five chapters have been organised to follow the sequence of the research phases already described; Chapters IV, V and VI are concerned with the findings from the *investigation* phase, Chapter VII with the women-focused curriculum *intervention* and its *evaluation*, and Chapter VIII with an holistic *evaluation* of the research.

The second guiding principle is the valuing of the students' perspectives and of their words, therefore, four of the five chapters are concerned primarily with their perspectives (Chapters V to VIII). The presentation of the quiet female students' perspectives is accorded a greater proportion of written space as a way of creating a space in which quiet female students can 'speak' about their experiences.

The third guiding principle is related to the previous principle and concerns the greater proportion of written space given to the qualitative data (Chapters V to VIII) compared with the space given to the quantitative data (Chapter IV and part of Chapter VII). The 'results' are the *numbers* generated about each student's public participation pattern, *but* more importantly the 'results' are in the *words* of each student.

CHAPTER IV

THE PUBLIC VERBAL SPACE OF FOUR GEOGRAPHY
CLASSROOMS

The focus of this chapter is the public verbal space of four geography classrooms, with a more detailed account of the public verbal and physical space of 5L.

I. TRIANGULATION OF THE DATA SOURCES

The students', teachers' and researcher's perspectives, will be compared later and this is called data triangulation. Data triangulation means that I have obtained information from "as many different data sources as possible which bear upon the events under analysis" (Denzin, 1978); in this research the data sources were the 97 students with more detailed data provided by the 12 students who were interviewed on a one-to-one basis, the three teachers, myself - the researcher, and three co-observers. Data triangulation is one strategy for improving the validity of research findings by exploring what independent data sources 'say' about a particular social phenomenon, in this case about the public verbal space of 5L and about the two women-focused lessons.

The term *validity* refers to the relationship between the observation, questionnaire and interview data, and reality - how well does the data reflect the reality of participation and non-participation in the public verbal space? There are three possible outcomes of triangulation: *convergence*, *inconsistency* and *contradiction* (Mathison, 1988). *Convergence* of data sources is satisfying because it shows where one or more students, one or more teachers, and the researcher independently have a similar perception of a particular social phenomenon; this improves the validity of the research findings. Nevertheless, the *inconsistencies* and *contradictions* between the data sources are just as important because they direct the researcher's attention to where an individual student's reality may have gone unnoticed or may have been inaccurately perceived by other students, the classroom teacher, and/or myself - the researcher. Quiet students in particular, were more likely to go unnoticed and/or be misunderstood by their teachers; examples of this will be reported in subsequent chapters. Yet quiet students' insights on public verbal space have the potential to be the most informative

because they have the opportunity to observe and listen more than their teachers and their high participating counterparts.

Inconsistencies and *contradictions* between the data sources are also important because they prompt the researcher to re-interrogate the quantitative and qualitative data, to take account of the research context, and to utilise understandings of the larger social world (Mathison, 1988), to suggest possible explanations for particular classroom phenomenon for which there is contradictory evidence. The *inconsistencies* and *contradictions* between data sources can push researchers to reformulate previously taken-for-granted understandings and potentially extend explanation of social phenomenon.

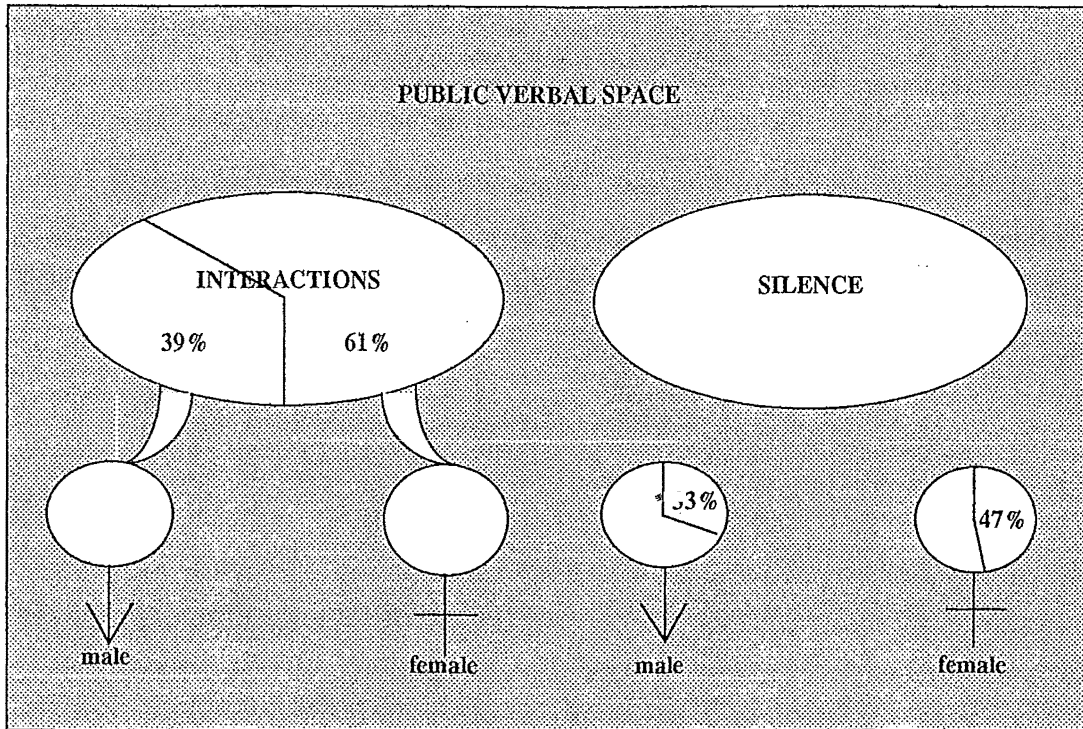
II. THE RESEARCHER'S PERSPECTIVE OF PUBLIC VERBAL SPACE

The observation data will be presented in two formats - diagrammatic and ranked lists. The diagrammatic format facilitates the presentation of information about female and male students' participation and non-participation in four geography classrooms. The 'ranked' lists facilitate the presentation of information about individual female and male students' public participation patterns. The first section will utilise the diagrammatic format and the second section the ranked list format.

(1) The observation data - diagrammatic presentation of the findings

Figure 8 is based on Figure 2, which was introduced and explained in detail in Chapter I; it is utilised here to present the findings from the observation data. It shows in a symbolic way the two realms of public verbal space - (a) the space in which talking occurred and (b) the space in which there was silence. The data from all four geography classes has been amalgamated to present a broad picture of the gendered nature of public verbal space and of silence. The finite space in which talking occurred is represented by the 'speech bubble', and the proportions of this space (the total number of public student-teacher interactions) that were taken up by female and male students respectively, are represented by the 'pie-graph' division of the 'speech bubble'. Silence is made explicit and tangible in the diagram by an empty 'speech bubble'. The circles of the female and male symbols are also utilised as a 'pie-graphs' to show what proportion of all the female and male students in the four classes were silent (did not take part at all in a public student-teacher interaction) during one or more of the observed lessons.

Figure 8. The gendered nature of public verbal space and of silence in four geography classrooms.



(a) Female and male students' 'share' of total student/teacher interactions.

(b) The proportions of female and male students who were silent during one or more lessons.

Part (a) of Figure 8 shows that across the four geography classes, female students took up on average, 39 % of the public verbal space and male students took up on average, 61 % of this space. In other words, 39 % of the total public student/teacher interactions were with female students and 61 % were with male students.⁴ This result 'occupies the middle ground' between the research that found "on average, teachers spend at least two-thirds of their time talking to their male students" (Alton-Lee and Nuthall with Patrick, 1993; Newton, 1988; Spender, 1982) and Kelly's (1988) meta-analysis which found that on average: "teachers spend 44% of their time with girls, and 56% of their time with boys". Another way of presenting this data is in terms of the average number of public student-teacher interactions each female and male student engaged in; each female student took part in 2.7 student-teacher

⁴ These percentages and all subsequent percentages have been corrected for unequal numbers of female and male students, and for absences of female and male students.

interactions and each male student took part in 4.2 student-teacher interactions during each observed lesson. However, these average figures render invisible the silent female and male students in each of these four classrooms.

Part (b) of Figure 8 shows that 47 % of all the female students were silent (did not take part at all in a public student-teacher interaction) and that 33 % of all the male students were silent during one or more of the observed lessons. A greater proportion of female students were silent during one or more of the observed lessons. This finding is supported by Krupnick (4 June, 1992) who claims that most of the silent students are female students in co-educational classrooms.

These results are rendered more powerful by taking into account that all three teachers involved in the research knew that I wanted to find out about participation in classroom discussion, and that I had a particular interest in the gender of participants and non-participants. *If* each of the three teachers made a greater effort to interact with their female students for the benefit of me - the researcher, yet 39 % of all their student-teacher interactions were with female students and 61 % were with male students, it raises questions about what the interaction patterns would be without the presence of a researcher. It is obvious that even with a level of awareness of the gender distribution of public student-teacher interactions, teachers still favour the male students or at least do not compensate for male students self-selecting and demanding attention (Kelly, 1988; Spender, 1982). However, this research is more concerned with exploring the variability *within* these generalised patterns.

It is important to look at the patterns of public student-teacher interactions for each of the four classes; these results are presented in Table 3:

Table 3. Female and male students' 'share' of the total student-teacher interactions in the four geography classes.

SEE ERDATA	percentage of total student-teacher interactions with female students	percentage of total student-teacher interactions with male students
5L	38	62
5N	44	56
7H	36	64
7L	29	71

These results show that female students in the two fifth form geography classes (estimated ages 15-16 years) took part in relatively more student-teacher interactions than their seventh form counterparts (estimated ages 17-18 years). This pattern is supported by Kelly's (1988:10) findings that "...after [6-9 years] the percentage of instruction which was directed at girls declined steadily with age".

The class - 5N - where female students took part in the largest percentage (44 %) of public student-teacher interactions was also the class that had the largest percentage of female students in the class - 71 % of the students in this class were female students. This finding was different to Kelly's (1988:10) results: "girls only received their fair share of the teacher's attention when they were a distinct minority, less than 40 % of the class". However, the class - 5L - that had the lowest proportion of female students out of the four classes - 37 % of this class were female students - had the next highest female public participation rate of 38 %. Perhaps the age of female students exerts a greater influence on how likely they are to take part (or not) in the public verbal space of the classroom compared with what proportion of other female students are present.

The class - 5N - where 71 % of the students were female and where female students took part in the largest percentage (44 %) of public student-teacher interactions, was taught by a male teacher Mr North. In contrast, 7L - where 66 % of the students were female and where female students took part in the lowest percentage (29 %) of public student-teacher interactions, was

taught by a female teacher Ms Lapresle. This finding differed from Kelly's (1988:18) finding that "male teachers direct substantially less of their classroom interaction to girls than do female teachers." Ms Lapresle taught both 5L and 7L, yet she had the second highest rate (38 %) of public student-teacher interactions with her fifth form female students and the lowest rate (29 %) with her seventh form female students. The third teacher, Mr Hughes taught 7H, where 55 % of the students were female and where female students took part in the second lowest percentage (36 %) of public student-teacher interactions. It is clear that there are many variables involved in determining the average rates of public student-teacher interaction with female and male students in each of these classes.

The different rates of absenteeism amongst female and male students during the observed lessons should be made explicit because it is another 'measure' of non-participation in the public verbal space of the four geography classes. The absence rate has been calculated for female students by dividing the number of female absences by the total potential number of female attendances. For example, in 5L, there was a total of four female students who were absent during the five observed lessons, this was divided by 55 potential attendances (11 female students multiplied by five observed lessons), to give 7 %; in other words 7 % of the potential total of female attendances, were in fact female absences. The male students' absence rate has been calculated using the same method. The female and male absentee rates are presented in Table 4:

Table 4. Female and male students' absence rates during the observed lessons.

	female students' absence rate (% s)	male students' absence rate (% s)
5L	7	3
5N	22	13
7H	14	9
7L	8	10
absence rate for all classes (% s)	15	8

Female students were almost twice as likely as their male counterparts to be absent from geography, over the four classes. It may mean that female students were twice as likely to be sick and therefore absent from geography, *or* female students were twice as likely to 'vote with their feet' and not attend geography because it was not interesting or relevant to them, *or* a combination of both factors. Future research must be designed to explore the issue of female and male absenteeism more carefully. Ideally, the reason for an absence should be established and it should be determined whether respective absences apply 'equitably' to all of a student's subjects or 'selectively' to geography.

Finally in this section, it is important to look at the proportions of female and male students who were silent during one or more of the observed lessons, in each of the four classes; these results are presented in Table 5:

Table 5. The proportions of each classes' total of female and male students, who were silent during one or more observed lessons.

	proportion of each class' total of female students who were silent	proportion of each class' total of male students who were silent
5L	36	37
5N	54	44
7H	30	12
7L	58	33

These results show that there were similar proportions of the total number of female and male students in 5L, who were silent during one or more observed lessons. In the remaining three classes, a greater proportion of each classes' total number of female students, were silent during one or more lessons, relative to the proportions of male students who were silent. The disparity between proportions of silent female and male students in each class, was the most marked in the two seventh form classes. The greater proportions of female students who were silent in 7H and 7L relative to their male counterparts in the same class, provides further evidence of the general pattern of female students' interactions with their teachers declining with age (Kelly, 1988).

At this point in the results chapter, I have discussed the gender, age and the overall proportion of female students in each of the respective geography classes, the gender of each of the teachers, the issue of a researcher's presence together with the teacher's prior knowledge of the research agenda, student absences, and silence. The race, class and sexuality of the students and the teachers were other equally important variables influencing public student-teacher interaction patterns. However, I have not collected this information for two reasons. Firstly, in order to keep a research project constrained by time, manageable, the number of variables that it was possible to explore was also constrained. Secondly, it represented a potential invasion of privacy that was not justifiable in research that was primarily concerned with gender and silence. However, the dynamics of gender, race and class are integral to the content of the two women-focused lessons.

Female and male students' responses to gender-specific and race-specific content in these two lessons, will be discussed in Chapter VII.

(2) The observation data - presentation of the findings using 'ranked' lists

The use of percentages and average number of student-teacher interactions per student, show clearly that there were inequalities in the average public participation patterns of female and male students, that favoured male students. However, these statistics do not show the inequalities *within* the gender groups and obscure individual differences; these shortcomings are remedied by presenting the results as a 'ranked' list for each class. The sections of the 'ranked' lists most pertinent to the discussion are presented in Tables 6 and 7. This format shows which students were high participants and, by contrast, which students seldom participated in the public verbal space of each classroom.

The students have been 'ranked' in Tables 6 and 7 according to their *real mean number of (public student-teacher) interactions*, which has taken into account the differential number of observations carried out in the four classrooms and the absences of individual students. The *real mean number of interactions* was therefore calculated as the *total (number of) student-teacher interactions* divided by number of observations the student was present for; for example, Paul took part in a total of 33 public student-teacher interactions and was present during the four observations carried out in 5L, giving him a real mean number of 8.2 public student-teacher interactions.

(a) The vocal students

Table 6 shows the female and male students who had the highest number of public student-teacher interactions in each class, the lists were continued as far as necessary to include one female student with the highest *real mean number of interactions*.

Table 6. The students with the highest number of public student/teacher interactions, 'ranked' according to their *real mean number of interactions*.

class	name	gender	total student- teacher interactions	number of absences	real mean no. of interactions
5L	Paul	m	33	0	8.2
	Dillon	m	24	0	6
	Doug	m	24	0	6
	Nicholas T.	m	16	1	5.3
	Natasha	f	15	1	5
5N	John	m	48	0	8
	Stephen F.	m	37	1	7.4
	Cory	m	22	3	7.3
	Tania	f	26	2	6.5
7H	Greg	m	50	2	10
	Nick	m	60	0	8.6
	Dave	m	52	0	7.4
	Helen	f	30	1	5
7L	Stefan	m	48	1	12
	Noel	m	59	0	11.8
	Vicky	f	40	0	8

Table 6 provides far more information about who really takes up the public verbal space of each of these geography classrooms. The three students who took up the most public verbal space in 5L, 5N and 7H, were male students; 7L was the only class where a female student 'ranked' third. In the case of 5L, four male students took up the most public verbal space, ahead of

the female student with the highest rate of public participation. In the case of 5N, where 71 % of the class were female students, three male students had the highest rates of public participation.

The male student who took up the most public verbal space in each of the four classes did so disproportionately, in relation to the female student with the largest share. In 7H, Greg's *real mean number of interactions* of 10 represented twice as many interactions as Heather, the female student with the largest share (5), took part in. In 7L, on average Stefan took part in 12 public student-teacher interactions per observed lesson - four more than Vicky, the female student with the largest share (8), took part in. In 5L and 5N, these differences were smaller. The differences in *real mean number of interactions* may appear to be small numerically at the scale of one lesson but if these differences were extrapolated over the school week with four geography lessons, Greg would have 20 more student-teacher interactions than Helen and Stefan 16 more than Vicky. These differences would be even greater if they were extrapolated over the school year of 40 weeks.

Female students who do take up relatively more public verbal space are noticed by their teachers and their peers, and receive more comment and criticism for their verbal behaviour than their male counterparts who take up far more public verbal space and associated teacher attention. Male dominance is so customary, it seems normal and goes unnoticed, while female 'dominance' seems abnormal and is immediately noticed and commented on. One particular lesson for 7L held in the computer room, highlights the issue of whose verbal behaviour gets noticed. After the observation session, I had noted in my journal:

Noel/Stefan/Vicky were particularly demanding. It's interesting to note [Ms Lapresle] seemed to notice Vicky's demands more so than Noel's - they had a similar number of requests for help - yet [Ms Lapresle] said to Vicky 'to wait, she wasn't the only student in the class'; Noel didn't get a similar response. This 'stopped' Vicky temporarily but didn't silence her. [The teacher] checked with me and the observation schedule saying jokingly 'has Vicky gone off the scale yet?' (K.M. Nairn, 18th March, 1993).

The data collected on the observation sheet showed that Noel had called on the teacher for information 14 times, Vicky had called on her 11 times, and Stefan seven times. Noel had asked the teacher for help 3 more times than Vicky, yet he was not reprimanded for his verbal demands.

This was one example where the teacher's and the researcher's initial perceptions recorded in the journal - "they [referring to Vicky and Noel] had a

similar number of requests for help" - differed from the observation data. This inconsistency between the data sources was useful because it required explanation which led "to a conception of one or more causal mechanisms which, because of their...plausibility, deserve to be further investigated" (Haig, 1987). Research has shown that male hegemony influences females and males to underestimate male domination (Alton-Lee and Densem, 1992; Kelly, 1988), and to overestimate female participation. Further investigation of the influence of male hegemony on students', teachers' and researcher's perceptions will be reported later in this chapter and again in Chapter VI.

(b) The quiet students

Table 7 shows the female and male students who had the lowest number of public student-teacher interactions, the lists were continued as far as necessary to include at least one female and one male student with the lowest *real mean number of interactions*.

Table 7. The students who had the lowest number of public student/teacher interactions, 'ranked' according to their *real mean number of interactions*.

class	name	gender	total student- teacher interactions	number of absences	real mean no. of interactions
5L	Amy	f	1	1	0.3
	John B.	m	1	1	0.3
	Jim	m	2	0	0.5
5N	Keith	m	0	1	0
	Joshua	m	2	1	0.4
	Alistair	m	3	0	0.5
	Julie	f	2	2	0.5
	Kim	f	2	2	0.5
7H	Kelly	f	9	0	1.3
	Jeff	m	9	0	1.3
	Robyn	f	10	1	1.7
7L	Rowena	f	3	0	0.6
	Mattie	f	6	0	1.2
	Rochelle	f	5	1	1.25
	Linda	f	7	0	1.4
	Jane	f	7	0	1.4
	Emily	f	6	1	1.5
	Harry	m	10	0	2

Female students had the lowest number of public student-teacher interactions in three of the four classes - 5L, 7H and 7L. One male student did not take part at all in public student-teacher interactions - Keith (5N) was

silent during the five observations that he was present for. Table 7 shows that some male students are silent or quiet. This challenges the generalising nature of average statistics that suggest that all male students dominate the public verbal space of classrooms when in fact a relatively small number of male students do.

This information is important in two ways; firstly, information on which students are taking up a disproportionate share of the public verbal space in classrooms, means that the appropriate students can be targeted to modify their verbal behaviour. Secondly, the finding that some male students are quiet, challenges the myth that all male students are *naturally* noisy and therefore *naturally* dominate the public verbal space of classrooms. Gender differentiation alone cannot explain male domination; for "women's and men's propensities and dispositions to behave in certain typical ways...to be actualized...practices and institutional structures must encourage the disposing behaviour" (Young, 1990:45).

The practices and institutional structures of schooling encourage male domination (see Sadker, Sadker and Klein, 1991, for a recent review of the research). Quiet male students may derive benefits from male domination of the public verbal space; for example, the enacted curriculum is more likely to be about male interests and experiences. However, not all male students play an active role in the male domination of the public verbal space of the classroom. This raises questions about why some male students 'chose' not to actively contribute to male domination of the public verbal space, in the four geography classrooms. Was it because they could not compete effectively with other male students for a dominant share of the public verbal space? Was the disposition of each of the quiet male students quite different to the disposition of each of the dominating male students? This research is not able to answer these questions; however, these questions deserve attention in future research.

This completes the analysis of the data that relates to all four geography classes. The next section of this chapter will take a more detailed look at the public verbal space of one class - 5L, and will compare the researcher's, the students' and the teachers' perspectives via triangulation of the data sources.

III. THE PUBLIC VERBAL SPACE OF 5L

Participation in the public verbal space of 5L is examined in detail in this section of the chapter, for two reasons. Firstly, ten quiet students from 5L were interviewed twice, and these students have contributed honest and detailed descriptions of their own participation, as well as their perspectives of other students' participation. Secondly, this section lays the 'groundwork' for subsequent chapters that focus on 5L.

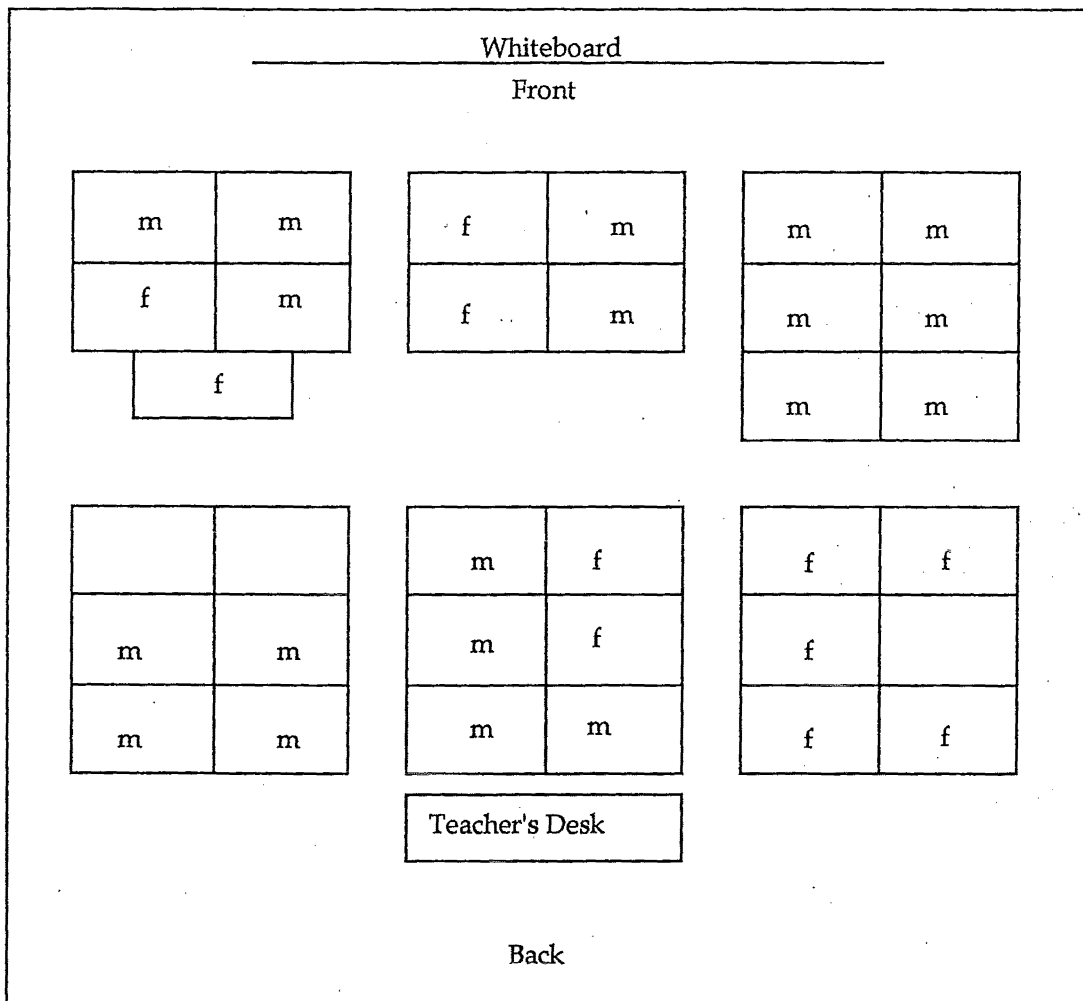
There were 30 students in 5L - 11 female students and 19 male students - and it was taught by a female teacher - Ms Lapresle. Some quotes from the first journal entry written, provide a picture of 5L:

They were lined up outside the classroom bursting with energy...The class already sits in groups of four or five or six so it is very straightforward for groupwork to occur...There was a great deal of noise, talking. Some students seemed lost; others worked well...Ms Lapresle said that my presence didn't seem to change things - they were behaving as they would usually...A positive learning atmosphere in the classroom; Ms Lapresle seemed relaxed...I felt that Ms Lapresle and the students were receptive to the research at this stage. (K.M. Nairn, 11th March, 1993).

There was one Maori female student in 5L, the rest of the students were of *pakeha* descent. Seven female students (including the Maori female student) and three male students who had been noticed as relatively quiet students, were invited to be interviewed on a one-to-one basis, following the selection and invitation process described in Chapter III. The importance of protecting the identities of the students, the teacher, and the school precludes a more detailed 'sketch' of 5L.

Figure 9 is a map of the physical layout of 5L's classroom and of the seating positions of female and male students. The seating positions of particular 'named' students will be highlighted following the subsequent discussions of who the quiet students are, and who the frequent participants are, in 5L.

Figure 9. Map of 5L's classroom.



Key:

- = desk
- f = female student sits at this desk
- m = male student sits at this desk

The discussion of 5L's public verbal space will begin with the students' perspectives of which students were quiet, followed by the researcher's and the teacher's perspectives, and triangulation of these three data sources. The same sequence will be followed in the discussion about the frequent participants in 5L's public verbal space.

(1) Who are the quiet students of 5L ?

(a) The students' perspectives

All the students in 5L were asked the question "who doesn't take part in class discussion in geography?" during the interviews or via a questionnaire; both sources of data have been amalgamated and are presented in Table 8.

Table 8. The quiet students of 5L, from the students' perspectives.

named student	gender	number of students who mentioned the named student
John B.	m	12
Mark	m	11
John M.*	m	8
Dillon	m	8
Stephen	m	7
Jessica*	f	7
Davinia*	f	6
Zoe*	f	6
Mae*	f	5
Amy*	f	5
Doug	m	5
Hamish	m	5
Ken	m	5
Nichola*	f	4
Nina*	f	4
John S.	m	3
Kevin	m	3
Jim*	m	3
Andrew	m	2
Anthony	m	2
Terry*	m	2

(Note that the ten students who were interviewed, are identified in this table by the * beside their names. Whenever the interviewed students' names appear in subsequent tables in this chapter, they will be identified by an asterix).

In response to "describe in your own words how much you take part in class discussion in geography", the following students said:

Table 9. The students' perceptions of their own participation levels.

named student	description of their participation patterns
John B.	about 0 %
Mark	I don't take part in class discussion
John M.	I don't really take part in class discussions, not much
Jessica	hardly ever
Davinia	the majority of times
Zoe	only a few times
Mae	I don't participate that much in discussing some things that we are doing...
Amy	not very much
Nichola	I really don't take part at the moment
Nina	not very often
Jim	well I don't talk all the time...but then I don't...sit quiet all the time, I am just sort of sitting on the fence...I'll talk if I have got something to say, but otherwise I just won't
Terry	I do take part quite a bit, alot of the time

(b) The researcher's perspective

The notes taken after the first formal classroom observation, provide some insights on who I noticed as not taking part in public verbal space of 5L:

...the group of five female students[referring to Amy, Davinia, Jessica, Mae, Zoe]...seldom ask for help unless Ms Lapresle checks out how they are going or is nearby their desks, NB. Jessica did leave her desk to go to [the teacher] and ask her questions (K.M. Nairn, 18th March, 1993).

The observation data showed who the quiet students were:

Table 10. The quiet students of 5L, 'ranked' according to their *real mean number of interactions*.

name	gender	total student- teacher interactions	number of absences	real mean no. of interactions
Amy*	f	1	1	0.3
John B.	m	1	1	0.3
Jim*	m	2	0	0.5
Nichola*	f	3	0	0.7
Mark	m	3	0	0.7
Nina*	f	4	0	1
Zoe*	f	4	0	1
Mae*	f	5	0	1.2
Ken	m	5	0	1.2
Davinia*	f	5	0	1.2
Andrew	m	6	0	1.5
Tammy	f	6	0	1.5
John M.*	m	7	0	1.7
Kate	f	6	1	2
Terry*	m	9	0	2.2

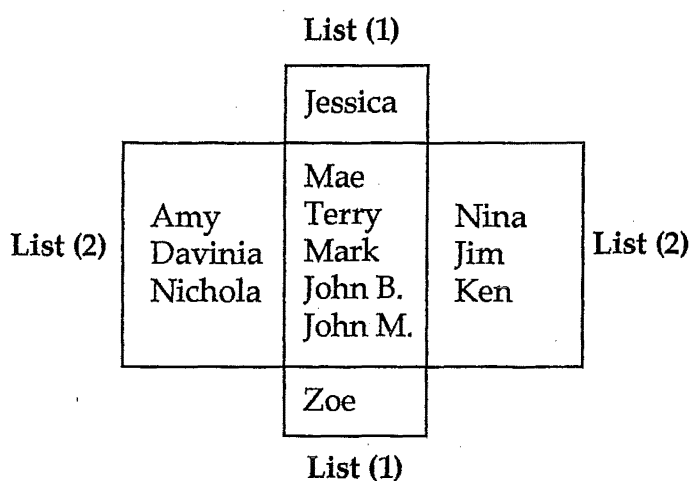
(Note that Jessica has not been included; she had a real mean number of 4.7 interactions).

Table 10 shows that eight female students (out of 11) and seven male students (out of 19) were quiet.

(c) The teacher's perspective

The teacher of 5L was asked "who the silent students were" at the beginning of the research process before the formal observation phase began and she named the students in list (1) at that point in time (March, 1993). Ms Lapresle was then interviewed on a one-to-one basis on the 2nd August, 1993, towards the end of the research process and after the second round of interviews with the students had been completed. One of the questions asked during the interview was: "who doesn't take part in class discussion?"; the students she named are in list (2). These lists are presented in Figure 10; the intersection of the two lists contains the names of the students who were named by the teacher on both occasions:

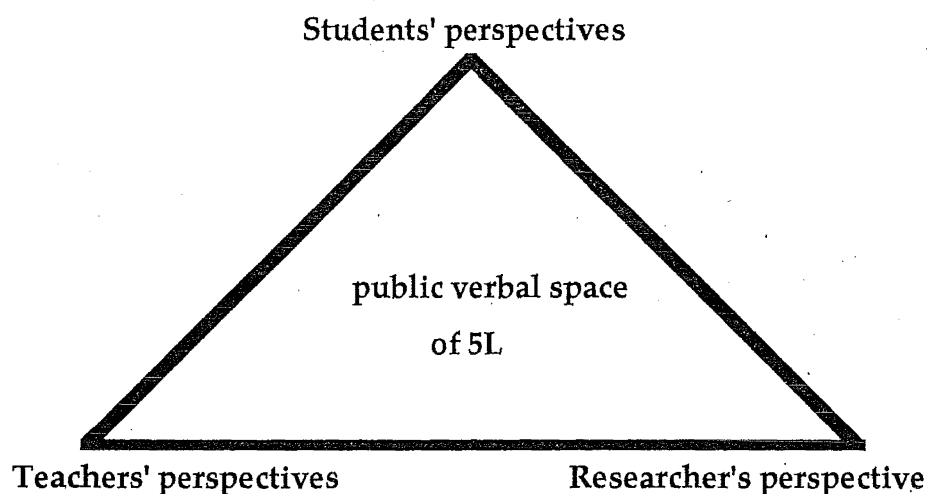
Figure 10. The students named by the teacher as silent students/students who do not take part in class discussion - the two lists.



The teacher named seven different female students and six different male students.

(d) Triangulation of the data sources: convergence and contradiction

Figure 11. Triangulation.

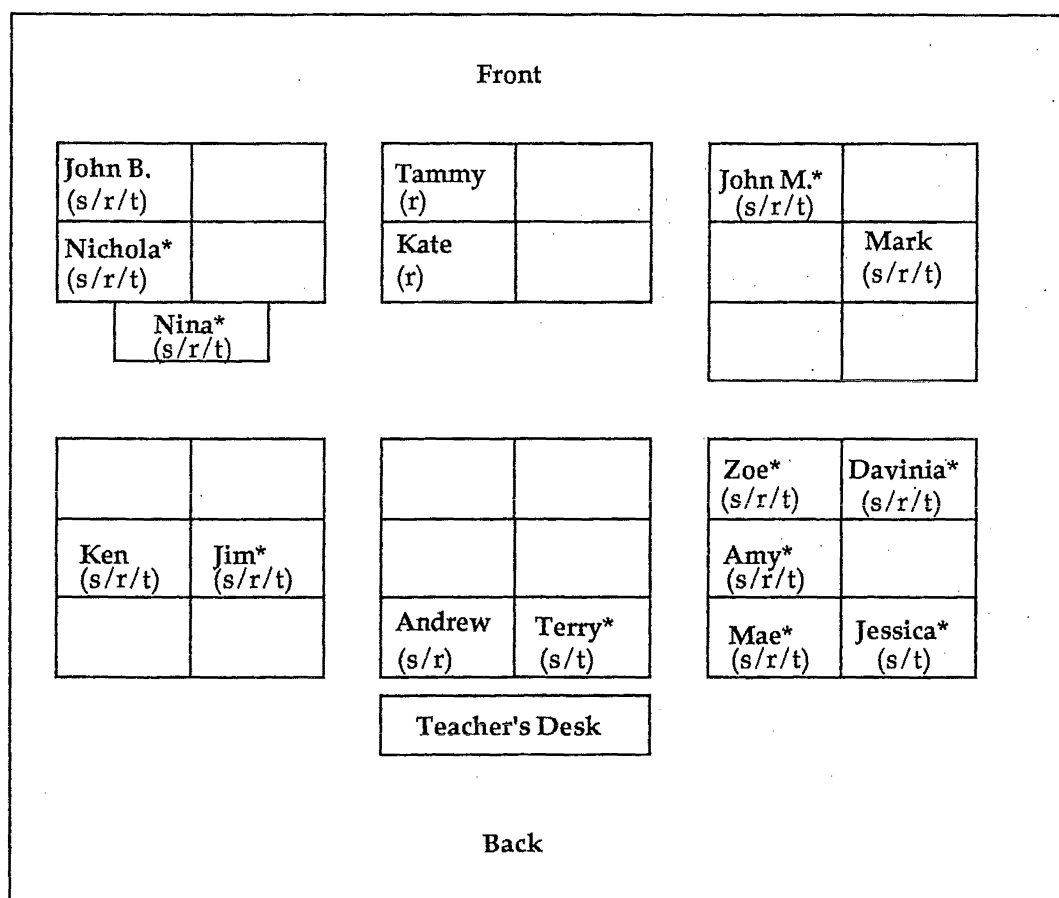


Amy, Davinia, Mae, Nichola, Nina, Zoe, John B., John M., Jim, Terry, Mark, and Ken were identified by the students, the researcher and the teacher, as being students who seldom took part in the public verbal space of 5L. Jessica was identified as a quiet student by other students and by the teacher, but was not identified as quiet by the researcher's data. However, Jessica's public student-teacher interactions were predominantly in the category *student calling on the teacher* for help, rather than in the categories associated with class discussion.

~~SEE APPENDIX A~~ There were three 'ommissions': Tammy (1.5 interactions per observed lesson), Andrew (1.5) and Kate (2). Tammy and Kate were considered to be frequent participants by the teacher and the overestimation of their participation will be discussed in detail in section (2)(d). Andrew has not featured at all in the teacher's perceptions, was noticed by two students as not taking part, and had an average participation rate of 1.5. Andrew wrote in response to "describe in your own words how much you take part in class discussion in geography" - "not very much, really". Andrew may have gone unnoticed because he sat with a group of frequently participating students.

In summary, 13 students - seven female students and six male students - were noticed as quiet students by other students, the researcher and the teacher; nine of these 13 students were interviewed. Figure 12 shows where these quiet female and male students sit in the physical space of 5L's classroom, and at the same time provides a diagrammatic summary of the data from the three different sources. The spatial patterns evident in this 'map' need to be considered alongside the spatial patterns in the 'map' generated about the frequent participants in 5L's public verbal space, which is presented at the end of the next section.

Figure 12. 'Map' showing where the quiet students sit in 5L, and summary of the source of data about each student.



Key

s = named by other students

r = named by the researcher

t = named by the teacher

* = interviewed by the researcher

The spatial pattern that is evident in Figure 12 is the concentration of quiet students around the periphery of the classroom; it is almost as though they are on the edge looking in to a central public verbal space that they seldom participate in. Quiet students appear to group together mostly in same-sex pairs or groups. The largest 'concentration' of quiet students is the group of five female students who sit together in the back right-hand corner of the classroom. The teacher usually stood in the central front area of the classroom when she was formally teaching and sat at her desk when carrying out administrative tasks; both these positions were central to the classroom, placing the quiet students in her peripheral vision rather than in her direct vision. Krupnick (4 June, 1992) calls the areas where quiet students sit, the

"silence ghettos"; the area of the room where the five female students sit is one example of a "silence ghetto".

(2) Who are the vocal students of 5L?

(a) The students' perspectives

All the students in 5L were asked the question "who takes part in class discussion in geography?" during the interviews or via the questionnaire; the students' perceptions from the interview and questionnaire data have been amalgamated and are presented in Table 11.

Table 11. The frequent participants of 5L, from the students' perspectives.

named student	gender	number of students who mentioned the named student
Paul	m	21
Natasha	f	18
Nicholas B.	m	14
Mary	f	11
Terry	m	7
Kate	f	6

(Note that Terry had been named by two students as someone who did *not* take part in class discussion in the previous section, yet was named here by seven other students as someone who did take part).

In response to "describe in your own words how much you take part in class discussion in geography", these students said:

Table 12. The students' perceptions of their own participation levels.

named student	description of their participation patterns
Paul	lots
Natasha	lots, I enjoy the discussion parts
Nicholas B.	I think I do my share but sometimes my teacher tells me I do more than my share
Mary	I take part in discussion a bit, especially when I have questions I need to ask
Terry	I do take part quite a bit, alot of time, I usually only put up my hand to answer a question if I am sure I know the answer and that is quite often
Kate	I take part in geography discussion quite often

(b) The researcher's perspective

The journal entry written after the fourth classroom observation at the end of the *investigation* phase, conveys the researcher's perspective at this point in time:

Paul stood out in terms of demanding attention, presenting his brand of humour...I noticed that all the students who were called on without volunteering were male - in fact only one out of 12 of these was calling on a female student...An example of not waiting and/or scanning widely is when [the teacher] called on Terry at a similar time as Natasha and Mary put their hands up to answer; waiting would have made it possible for the teacher to register their volunteering...Students called on to read aloud were [four males and one female], Davinia seemed surprised and said "I don't know where I am". Most/some of the calling on [male] students to answer questions or read was as a means of control/keeping attention (K.M. Nairn, 4th May, 1993).

Table 13. The frequent participants of 5L, 'ranked' according to their *real mean number of interactions*.

name	gender	total student- teacher interactions	number of absences	real mean no. of interactions
Paul	m	33	0	8.2
Dillon	m	24	0	6
Doug	m	24	0	6
Nicholas T.	m	16	1	5.3
Natasha	f	15	1	5
Jessica	f	14	1	4.7
Mary	f	18	0	4.5
Nicholas B.	m	16	0	4
Kevin	m	15	0	3.7
James	m	15	0	3.7
Bart	m	15	0	3.7
John S.	m	14	0	3.5

Table 13 shows that three female students (out of 11) had a average participation rate of more than three public student-teacher interactions per observed lesson, and that nine male students (out of 19) were in this category.

(c) The teacher's perspective

The teacher of 5L was asked "who takes part frequently in this class in class discussion?" during the 'researcher-teacher' interview. Ms Lapresle's list (written in the same order as spoken) of the students who took part in class discussion, was: Natasha, Kate, Paul, Nicholas B. and Nicholas T. ("although more so Nicholas B. I would say"), Hamish, James, Tammy and Kevin. The teacher named three female students and six male students in response to this question.

(d) Triangulation of the data sources: convergence and contradiction

Paul, Natasha and Nicholas B. were all identified by the students, the researcher and the teacher. It was clear that these three students took part frequently in the public verbal space of 5L. Nevertheless, there were some contradictions between the data sources, for example, Dillon, Doug and

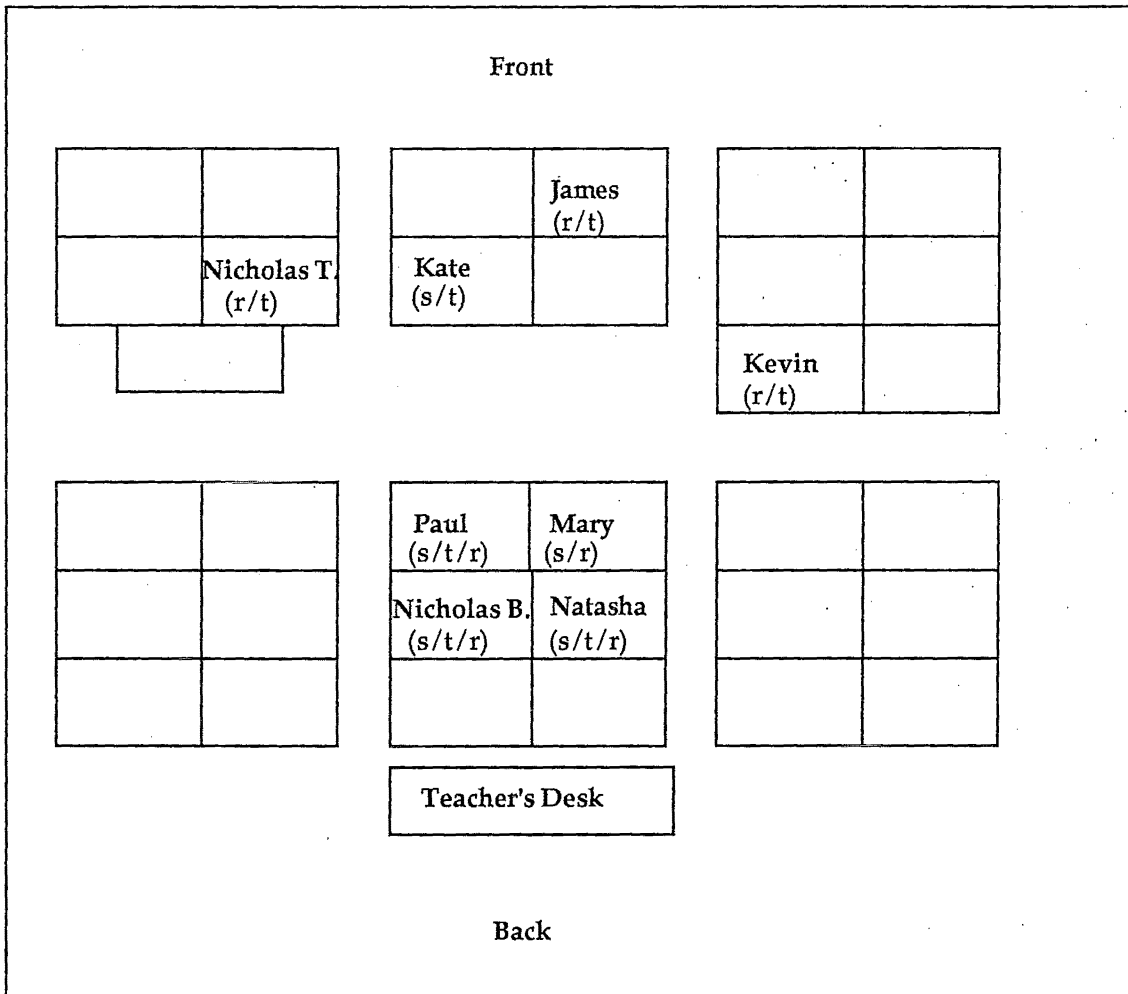
Nicholas T. were taking up a large proportion of public verbal space without being noticed by other students or by the teacher. All three students were frequently named by the teacher concerning behaviour and they called on the teacher frequently for help; this would not necessarily be considered by students and the teacher as taking part in class discussion. However, Dillon, Doug and Nicholas T. were clearly taking up public verbal space and teacher time; proportionately more time spent with some students is time that is not available to other students.

The other contradiction between data sources that I will highlight concerns the differing perceptions of the public participation patterns of two female students - Kate and Tammy. Kate herself, thought that she took part in class discussion "quite often" and was named by six other students for taking part, yet had an average participation rate of two public student-teacher interactions per lesson. Tammy said that she took part in class discussion "only when I understand it so I don't get it wrong"; she was named by two other students as someone who takes part in class discussion. Tammy had a average participation rate of 1.5 per lesson.

However, both of these students were perceived by the teacher as frequent participants in class discussion; in fact, Kate's name came 'second' as the teacher thought of and named students in response to the question. The teacher's perception of Kate and Tammy as frequent participants, is an overestimation considering Kate's and Tammy's average participation rates. The prominence of these two students in the teacher's perceptions could be explained by the location of Kate's and Tammy's seating position in the front centre group of four students, close to where Ms Lapresle stands when teaching. The overestimation of female students' public participation is also explained by male hegemony; it influences teachers to think some female students have participated much more than they actually have, and it influences some female students to think that they have participated more than they actually have. The implications of overestimation of female students' public participation, are discussed in detail in Chapter VI.

Figure 13 shows where the female and male students who frequently participated, sit in the physical space of 5L's classroom, and at the same time provides a diagrammatic summary of the data from the three different data sources. The spatial patterns evident in this 'map' need to be considered alongside the spatial patterns in the 'map' generated about the quiet students (Figure 12).

Figure 13. 'Map' showing where the frequent participants sit in 5L, and summary of the source of data about each student.



Key

- s = named by other students
- r = named by the researcher
- t = named by the teacher

(Note that only those students named by two or data sources, are included on the 'map').

The spatial pattern that is evident in this 'map', is the central location of these students in relation to the teacher's central position whether she is at the front of the room or sitting at her desk; they are in her direct line of vision. There is a concentration of frequently participating students directly in front of the teacher's desk; it is a group of two female and two male students.

The distribution of quiet students around the periphery of the classroom, around a central area where frequently participating students are located is the physical expression or mirror of what happens in the public verbal space of this classroom. The quiet students listen to a public verbal

space, centred predominantly on a few male students. Quiet female students either end up listening to male experiences and 'humour', or switching off; both these strategies have implications for female students' well-being and learning.

It is possible to consider these two 'maps' together, as a 'map' of the evaluative dimensions of this particular classroom. The students who sit around the periphery, may experience the evaluative climate of this classroom as more risky, compared with the experiences of the students in the more central area of the classroom. Chapter V will explore the quiet female students' experiences of the evaluative climate of 5L.

CHAPTER V

SAFETY AND RISK
STUDENTS' EXPERIENCES OF PARADOXICAL SPACE

I. PARADOXICAL SPACE AND THE EVALUATIVE CLIMATE

The classroom is one of the most evaluative public spaces that exist; the academic and social capabilities, appearance, dress and behaviour of each individual student, have the potential to be evaluated by their teacher and/or their peers. At the same time, the classroom may be experienced by students as a relatively private space in which it is possible to accomplish friendship and conversations (see Alton-Lee and Nuthall with Patrick, 1993). The classroom is therefore a paradoxical space and students' experiences of the classroom are likely to be paradoxical. Female students may experience the public dimension of classroom space as they experience other public space, in a way that is self-conscious and fearful. Paradoxically, the same female students may experience their private dimension of the classroom space - where they sit with another friend - as mutually interactive and supportive. In this way female students may experience the classroom space as 'insiders' *and* as 'outsiders'; 'inside' their friendship networks yet 'outside' the public verbal space. Female students' experiences of paradoxical space are not unitary; individual female students' perspectives of the paradoxical space of 5L will be considered in this chapter. The 'map' (Chapter IV:21) shows the seating position and the classroom perspective of the quiet female students named in this and subsequent chapters.

II. EXPERIENCES OF BEING AT THE CENTRE AND AT THE MARGIN

Female students are inside the public physical and verbal space of the geography classroom, yet simultaneously experience this space as outsiders - they do not feel safe. Nichola chose her seating position which placed her at the margins of the classroom, yet it provided her with a central viewing position of everyone in the room:

Nichola: ...I like the wall at the back of me rather than being stuck in the middle and people are behind me...I feel more comfortable against something, when I rearrange my room I always have my bed against the wall, I wouldn't put it in the middle, I wouldn't feel safe (first interview).

Nichola and Nina both used the word "safe" in their respective interviews to explain the physical lay-outs of classrooms that they felt safe and unsafe in:

Nina: Some teachers have got their room and it is set out in a circle, all the desks in a circle, and that is a wee bit easier cos you are actually safe from everyone and you can see everyone and that makes you feel more comfortable whereas in that [referring to the geography] classroom you are all in little groups and you feel as if that's your group and that's their room, and there is no interaction very much with the other groups (first interview).

At the beginning of the second interview, Nina initiated the questioning of her use of the word "safe":

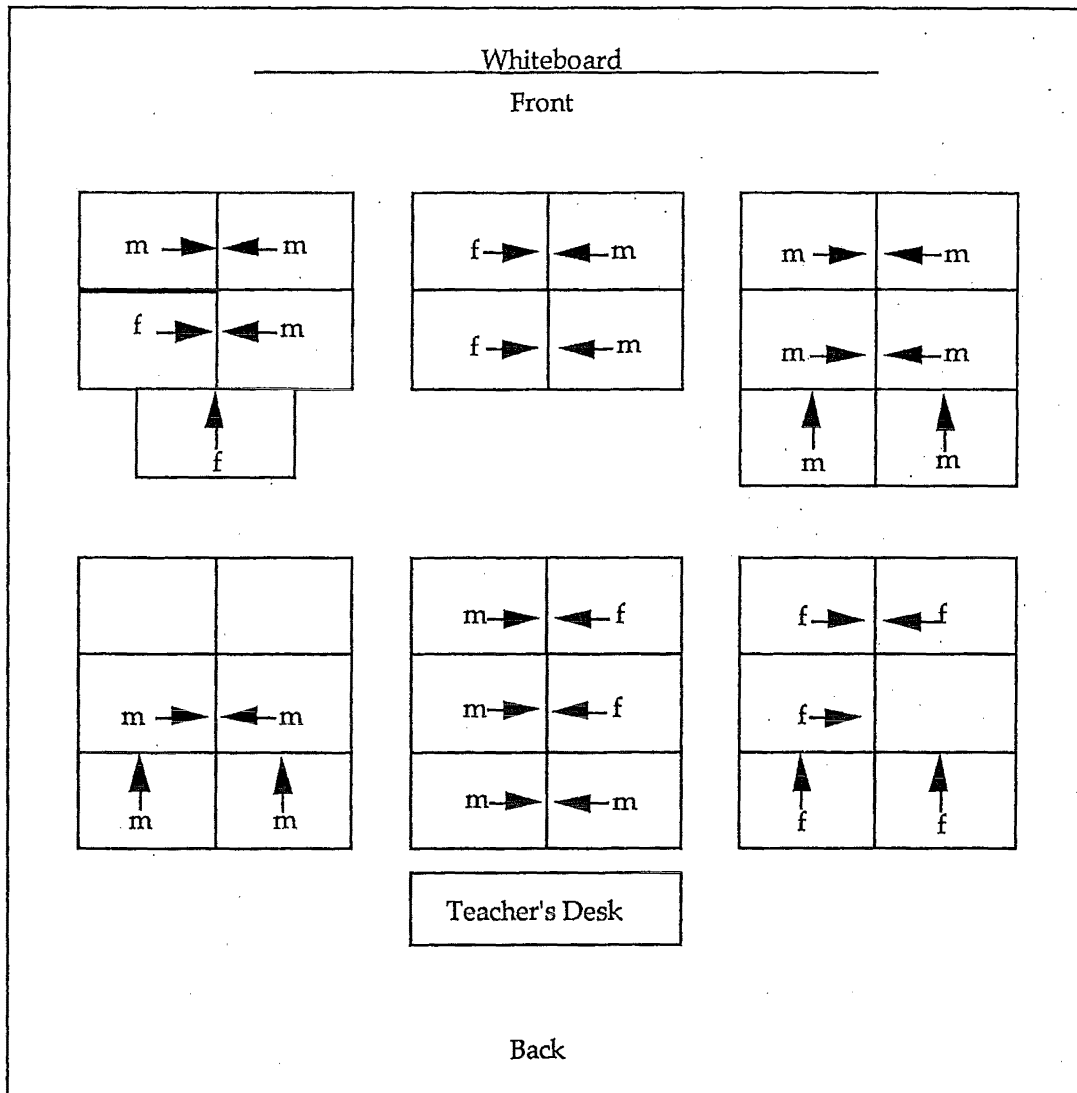
Nina:...I wouldn't normally say it, 'it feels safe'...when you are sitting in a circle...I don't think it would make you any more safer, I mean I don't know what I meant by saying it was safe...In a circle...you can see everyone's faces...so you can see who is talking and it is just sort of easier...it makes you feel more comfortable...if you are in desks [in] groups, you can't sort of see everyone unless you turn around and watch them...and you can't really be bothered (second interview).

Nina wanted to replace the word "safe" with "more comfortable". *The New Zealand Pocket Oxford Dictionary* (1986) has defined *safe* as "free of danger or injury; affording security or not involving risks". Nina has developed her definition of feeling *safe* as feeling *comfortable* in class discussion; she wanted to replace the word "safe" with "more comfortable" but has extended her understanding and explanation of *safe* as a concept in relation to taking part in public verbal space.

Nina's experience of paradoxical classroom space was "more comfortable" when the physical layout of chairs (without desks) was circular and you could see everyone's faces; in this arrangement Nina occupied a central, inside position. In contrast, there was a sense of being outside or on the margin of the public physical and verbal space in the geography classroom where the desks were organised into groups - "you can't...see everyone unless you turn around and watch them and...you can't really be bothered". Nina is conscious of students behind her but appears to be less concerned than Nichola who attempts to avoid this situation.

The seating arrangement of this geography class produced a particular set of conditions that shaped female students' experiences of the physical and the verbal spaces of 5L. Figure 13 shows 5L's seating arrangement and indicates the direction in which each student faced if they were looking straight ahead from their sitting position.

Figure 13. 5L's seating arrangement and the direction in which each student faced.



Key:

□ = desk

f = female student sits at this desk

m = male student sits at this desk

→ = direction in which student faced

The students in 5L faced and therefore watched in different directions. This layout differs from the more conventional one where students sit in rows, all facing the one way - towards the front and the teacher. Mae has articulated the experience of being a student in such a seating arrangement and she suggests what should happen instead:

Mae:...it seems like we are all paying attention to each other, we are all sort of looking at each other in our own group and not facing the teacher or the front of the

class...If we do then you have...to turn around...and I think if you can be in a class and you are learning from the teacher you should face them to receive what they are telling you (second interview).

The teacher's position is central to the web of public student-teacher interactions and Mae explains how it was easier to interact publicly with her science teacher because she was positioned close to the teacher. This contrasted with her experience in geography where there was a discernible gulf across which she had to reach from her physical location at the edge of the web. Mae has conveyed a sense of physical distance and of occupants in that physical space as constraining factors to her participation in the public verbal space of the geography classroom:

Mae:...it's easier because you are sitting up the front you can just sort of tell the teacher what the answer is...whereas if you are near the back, you are saying it across the room and...the class is in between you and the teacher and...it makes it harder because of that (second interview).

Mae is a drama student and therefore is familiar with performance and voice projection, yet she is self-conscious about taking up public verbal space in this particular subject. Mae has an awareness of who her real audience is in classroom discussion, and was pragmatic about who it was really necessary to communicate with in the classroom:

Mae: Well it is because I am trying to tell the teacher the answer but there's all these people there that I, I don't know, if the teacher asks you a question, they want you to tell the whole class what the answer is, it's really only the teacher that matters what the answer is because they are the teacher...(second interview).

Mae's involvement in drama outside of school and her relative silence in geography is one example of how students may lead double lives: a student may appear to lack confidence in their verbal skills inside the classroom yet the same student is confident and competent in their verbal skills in a range of arenas outside the classroom environment:

Mae: ...Mum was talking to teachers at parent/teacher interviews and they were talking about my drama and I think Ms Lapresle said that she didn't quite think I'd be into that type of thing, because I don't seem like the type of - outgoing actor or something like that - in class (first interview).

Mae 'discovered' the perceptions and expectations that the geography teacher had of her public verbal behaviour inside the geography classroom. Mae 'passes' as a quiet student inside the geography classroom and adopts a range of verbal styles in her various drama persona. What appears to be a particular female student's verbal style inside the classroom may be very different to her verbal styles outside the classroom.

III. BEING WATCHED AND JUDGED

Nichola: ...you don't feel comfortable in maybe other classes when you think people are looking at you...if I had my way I would sit down the back, most of the other classes I am down the back or against a wall (second interview).

For some women, there is no greater fear than that of making a spectacle of herself...much of the buffeting and bruising, the confinement and stumbling, of women's experience of space is part of a self-consciousness about being noticed: women watching themselves being watched and judged (Rose, 1993:145).

Nichola has articulated the experience of being watched. Nichola chooses seating positions that enable her to watch others in case they are watching her, another student cannot watch her unnoticed. Nichola went on to articulate the experience of being labelled, of being judged - "I hate people putting labels on anyone...I really hate that, so that is something you are conscious of." The labels Nichola was most concerned about were to do with her physical appearance and her intellectual abilities:

Nichola:...probably skinny labels, or...I was sort of top of every class...and you sort of immediately got the label of brain box, or nerdy, boring person...when you sort of do something that is either wrong or you are under pressure or something, you know, you can't just sort of chop and change and be yourself (second interview).

Nichola was so conscious of the issue of being looked at and judged that she mis-heard my first question of the second interview: "how did you feel reading the transcription of your interview?" and responded:

Nichola: It was sort of, you know you're not too sure...if anyone, how everyone is going to react. You're sort of wondering what you've said and if it's right and that the fact that everyone is looking at you. (Laugh).

Interviewer: So when you went back to your class you were conscious of everyone around you?

Nichola: Yeah I suppose, but that's me, I know I am, especially reading out in class... (second interview).

In contrast to Nichola, Mae prefers to sit near the front of the room and the teacher, so that she does not have to watch other students watching her and because it minimises the distance across which she must project herself:

Mae: I think at the front you feel more confident about saying the answer to something because everybody is behind you and they are not all turning around to look at you while you are trying to talk to the teacher but you just probably feel better because you are closer to the teacher too so you are not having to yell it across the whole room or try to attract their attention or something (first interview).

The experience of being watched and judged, so clearly articulated by Nichola and Mae, is one of the most objectifying processes to which the body is

submitted (Young, 1990). There is a sense of these two female students being 'outside' their bodies watching themselves being watched and evaluated. Nichola evaluates herself as she perceives others would. Nichola and Mae construct themselves as objects both in their experiences of physical and evaluative space, and in their articulation of those experiences. Nichola wants to know who is watching her, Mae does not. This self-consciousness suggests that these two female students see themselves as located in space, a space that is not their own (Young, 1990); "...women see their bodies as objects placed in space among other objects...Women's sense of embodiment can make space feel like a thousand piercing eyes; 'location is about vulnerability' (Rose, 1993:146). Nichola's and Mae's words have conveyed the vulnerability of their location in the geography classroom, and the strategies they adopt to minimise this vulnerability.

IV. FEAR OF BEING LAUGHED AT

This vulnerability was experienced by other female students in 5L, as the fear of being laughed at. The laughter and humour of peers can be a powerful controlling mechanism in the classroom; laughter can be a particularly intense form of evaluation:

Amy: ...people are just sort of scared... just the fact that if you are wrong you know you are going to get laughed at and be embarrassed, I guess it comes down to it (first interview).

Amy went on to name the students that she thought were most likely to laugh out loud - two female students and three male students - "especially Nicholas B. and Paul" who both sat at the neighbouring group to where Amy herself sat. In response to the interview question "...has it happened very much...how many times... roughly?", Amy was able to quantify the number of times she had been laughed at by "Paul and co." during the four months of geography prior to her first interview in mid-June:

Amy: ...Quite a few, but sometimes you just don't know whether that's what they are laughing at or they're laughing cos they laugh. Oh, I suppose about 30. Because sometimes you just don't know (first interview).

Amy's perceptions of Paul laughing at her were consistent with the teacher's perceptions of who Paul directs his comments at:

Ms Lapresle: Well he directs them...mainly to Natasha and Mary...I don't know if you can remember [name of female student], she left, he often made comments to her and Amy

The teacher said that Paul directed his laughter and comments at female students. Amy's experience of his (and other students') comments and laughter were enough to silence her, even when she was not sure whether it was directed at her or not. Male students' laughter and 'humour' in the public verbal space of the classroom, not only takes up finite public verbal space and teacher attention, but operates as a form of peer evaluation that can silence female students. Even when this laughter is not directed at a particular female student, the implied threat of 'generalised' laughter keeps some female students quiet.

Zoe said that her fear of being laughed at and being talked about by other students were the main reasons why she did not take part in class discussion:

Zoe:... if I know it I'll say something. If I understand a little bit or someone else says something and then I get it, I'll say something then. But you don't want to make a fool of yourself cos you *normally* get laughed at (first interview, my emphasis).
 ...you feel really stupid, everyone is standing there laughing at you and like if your friends join in you feel really stupid and they get at you afterwards, so I just don't [take part in class discussion]...if you make a booboo you feel like they are going to go and tell [my cousin] and then she goes and tells my sister because my sister kind of likes her, they talk and then you know, she'll send it around and everything (Zoe, second interview).

On further questioning, it was clear that there were three female students in the fifth form geography class who knew Zoe's cousin and were likely to go and tell her cousin if she made a "booboo"; the presence of these three students and the implicit threat that they would tell her cousin who would in turn tell others, was enough to silence Zoe. The memory of one particular incident contributes further to understanding the effects of laughter on Zoe:

Zoe:...I had [my exercise] book and you know the teacher was marking it and they were passing it around the classroom, you know everyone was cracking up after reading it and everything

Interviewer: so how did that happen...?

Zoe: Well, it just had my nickname on it...I don't think it had any other name on it and so they just passed it around in the classroom...and so they started looking

Interviewer: how did you feel in that situation?

Zoe: Really stupid...I had to say it was my book... (second interview).

Zoe went on to explain that there were two classes other than geography, where she felt more comfortable to take part and these were Art and Technical Drawing. Even though she was 'free' from the presence of her cousin and/or her cousin's friends, Zoe's experiences of these two classrooms were still problematic, Nevertheless, she felt more comfortable "in Tech. Drawing because mainly Davinia is in there and we are friends so it is much

easier" (second interview). The presence of a female friend makes the task of negotiating a hostile and judgemental classroom space, possible.

V. PRIVATE SPACES IN THE CLASSROOM

During the first round of interviews, I asked the students about how they chose where they sat in class; the female (and male) students' responses all related their decision to their friends' choice of location; this decision was made collectively with the friend(s) or independently of the friend(s):

Nina: In that class, I didn't know anyone except for Nichola...so I think Nichola and I sat together because we were the only people who knew each other...I don't think it makes any difference *where* you are sitting...it makes a difference *who* you are sitting with...(first interview, my emphasis).

Nichola: I can work with Nina, and [names two male students who sit at the same group]. You just sort of know them and it is easy to work with people you know and discuss things rather than discussing with someone you don't know...its easier (first interview).

Nichola and Nina sat together and the relatively private space in which they communicated was experienced positively by both students; knowing each other and the other students who sat at the same group of desks facilitated their ease of discussion.

Zoe: ...Davinia moved over one so that she talk to me better. [Zoe and Davinia now sit opposite each other]...it is easier to talk (first interview).

Davinia: ...I find it really good in groups, cos then you can discuss more...you get...ideas from other[s] and you can...discuss problems and if you have to do an assignment or something you [can work] better. You can find out more about them[the other female students at Davinia's group of desks], get to know them a bit better...I think it's quite good in little groups instead of a big straight line (first interview).

Amy:...you know, you sort of go to a place and...sit down and start yakking and so you...stay there. And talk with everybody and do work, it's good (first interview).

Zoe, Davinia and Amy all sat together; talking with each other was clearly important to each of these three female students. Davinia shifted desks so that she and Zoe could talk more easily, Amy's decision about where to sit was 'clinched' by her first experience of the talking there, and Davinia found talking with the other female students at her group of desks helpful for her school work as well as for getting to know each other better. Although these three students seldom took part in the public verbal space, they were active participants in the localised private verbal space of their group of desks. The words of all five suggest that talking in this relatively private space was easy and enjoyable.

Female students' experiences of classroom space are paradoxical. The public verbal space was experienced as an evaluative space by these female students, an evaluative space of greater or lesser intensity that contributed to their individual decisions not to risk talking in public. But talking in private was easy, productive and fun. Female students may simultaneously experience their private verbal spaces as insiders, and the public verbal space of the classroom as outsiders. They are simultaneously at the centre of their localised private verbal spaces, and at the margins of the public verbal space.

VI. GETTING IT RIGHT OR WRONG

The previous sections have focused on individual female students' experiences of the evaluative climate of their geography classroom, and on their experiences of the classroom's public and private spaces. The scale of this section will broaden to include some data about all the students of 5L, as a starting point from which to explore individual students' experiences of getting answers right and wrong in the public verbal space.

(1) Getting the answer right

Female students' confidence about their ability to get an answer right may affect their willingness to answer questions in public. This 'hypothesis' will be examined within the context of both female and male students' perspectives.

During the first round of interviews, all the students from 5L were asked "if the teacher asks you a question, how likely are you to get it right?" - ten of the students were asked this question in their one-to-one interview and the remaining 20 students were asked via a written questionnaire. The results of all the students' responses are presented in Table 14:

Table 14. "If the teacher asks you a question, how likely are you to get it right?" - the students' perspectives.

Estimated probability students	Female students		Male	
	Number	Percentage	Number	Percentage
"don't know" / "depends.."	1	9 %	2	10 %
< 50 %	1	9 %	3	16 %
50/50	2	18 %	2	10 %
> 50 %	7	64 %	12	63 %
Totals	11	100 %	19	99 %

A similar proportion of the female (64 %) and the male (63 %) students said that they were more likely to get their answer right if the teacher asked them a question in geography. Research carried out by Alton-Lee and Nuthall with Patrick (1993) showed that female students seldom gave incorrect answers in public. However, in spite of relative confidence about getting their answers right, a far greater proportion (64 %) of female students than male students were quiet in the public verbal space of this class (32 % of the male students were quiet). More specifically, six of the seven female students who said that they were more likely to get their answers right were the same six (of the seven) female students who were quiet and who were interviewed.

The following quotes from the ten students who were interviewed, give a 'voice' to the numbers in Table 14. The first eight quotes are from the students who said that they were likely to get their answers right if the geography teacher asked them a question:

Nichola: Greater chance of getting it right, as long as we had gone over the topic (first interview).

Nina: Well, I suppose if she asked me a question...I would probably normally get it right. I don't know - seven or eight out of ten. I don't normally get it wrong because most of the class discussions you've got the book in front of you so you can find the answer anyway...(first interview).

Zoe:...well, I've got it right so far I suppose...I'll look at the books...or one of my friends tells [me] the answer. So all the questions so far, yeah, I've mainly got them right (first interview).

Davinia: For myself, most times really, because I mean, I'm always...paying attention to what we are talking [about]... (first interview).

Mae:...I would probably usually get it right because I can just have a quick glance at the sheet and see what the answer is. But, sometimes she has asked somebody else a question and I thought of the answer and then it turns out the answer is wrong and I was glad I didn't put my hand up anyway (laughs) (first interview).

Amy: (pause) oh, I'd say about 60%. Yeah (first interview).

Jim:...well, if it's been something that we have been doing, I suppose I'd probably get it right but if I wasn't listening...I probably wouldn't (first interview).

Terry: I'll usually get them right (first interview).

All of these students appear to be confident about getting it right, and some students have identified strategies for ensuring that they do have the correct answer - "most of the class discussions you've got the book in front of you so you can find the answer anyway" (Nina, first interview). Confidence about getting an answer right needs to be considered in relation to each student's ability to get them right.

The students were asked about their perceptions of their achievement in geography during the first round of interviews carried out towards the end of Term 1. The students sat two tests based on previous School Certificate papers⁵ in Terms 2 and 3. The students' perceptions and their test results provide two other 'measures' of each student's likelihood of getting their answers right. The self-perceived *and* test-based achievement levels of Nichola, Nina, Jim and Terry were above average. Therefore, each of these four students have reason to be confident about their ability to give the correct answer. Zoe and Amy perceived their achievement levels as average and their test results were below average. Mae and Davinia both implied that their achievement levels could be better and their test results were below average. Each of these four female students were confident about giving the right answer if called on, despite below average test results. This is positive because these students' achievement levels (perceived and from the test) do not *appear* to adversely affect their confidence about getting an answer right.

There was one quiet male student who was less confident about getting his answers right in geography, but this was different in other subjects:

⁵ I have argued elsewhere (Nairn, 1993) that School Certificate geography exams are a problematic way of 'measuring' female and male students' acquisition of geographical knowledge.

John M.: I don't know, but probably about 50/50.

Interviewer. Would that be different in other subjects?

John M.: Probably quite different. Much more likely to get it right...[in] maths or science (first interview).

John M. implied that his achievement in geography was below average but his test results were above average; John M. appears to have underestimated his ability to get answers right in geography.

One quiet female student was even less confident about getting her answers right:

Jessica. 40% chance. Something like that (first interview).

Jessica said that her achievement was below average *and* her test results were below average, therefore, she had reason to be less confident about getting her answers right in geography.

Six of the seven female students and two of the three male students, said that they were likely to get their answers to the teacher's questions right. However, other factors negate the effects of being confident about giving correct answers and these constrain female and male students from volunteering to answer the teacher's questions. Some of the factors that silence female students have already been highlighted - self-consciousness about being watched, judged and laughed at. The next section will look specifically at female and male students' experiences of getting an answer wrong.

(2) Getting the answer wrong

The ten interviewed students' responses to the questions: "how do you feel if you get an answer wrong? what do the other students do?" will provide some insight into how the risks of getting it wrong far outweigh any benefits of getting it right for some of these students:

Nichola:... quite often I think of an answer and I don't say it and it ends up being wrong so you don't want to answer the next one... I'd much rather people tell me what to do and what happens rather than me having to tell them what I think happens and then being told you are wrong, cos that takes you back a notch. (first interview).....it sort of undermines your confidence (second interview).

Nichola would prefer others to make decisions about "what happens rather than me having to tell them"; the risks of getting it wrong mean that Nichola would rather forgo any opportunities for independent decision-making in the classroom setting.

Both Jessica and Zoe used language that described how their bodies felt when they got an answer wrong:

Jessica: Oh sometimes I feel really stupid and then sometimes I don't really care, if I give a really stupid answer I feel really thick (first interview).

Zoe:... really stupid and very small, and you just like to shrink really, you don't want anyone to talk to you...you don't want to talk again. Normally you hope the period goes really quickly and you just don't say anything (second interview).

Both Zoe and Jessica have explained the experience of getting an answer wrong in terms of how their bodies felt; Zoe talks about wanting to take up less space and to even disappear - "very small...you just like to shrink really." Getting an answer wrong was articulated by Zoe in a way that showed her "intense self-awareness about being seen and taking up [too much] space" (Rose, 1993). Both Jessica's and Zoe's experiences of *feeling wrong* about an incorrect answer that they gave, "dissolves the split between the mind and body by thinking through the body, their bodies" (Rose, 1993).

In contrast, the following six students - three female and three male students - were relatively less concerned about getting an answer wrong. Nevertheless, there are still hints at discomfort in the following quotes. The quotes have been arranged so that the three female students are speaking first followed by the three male students, so that the differences between the genders as well as the within the genders will be more obvious.

Mae: I'm not sure. I've never had a few answers wrong in geography before. You feel a bit stupid I think but then again people wouldn't really...notice if you got it wrong, they'd be looking it up in their books to find the right answer, so the class shouldn't really feel embarrassed or anything about getting it wrong (first interview).

Nina: In geography I don't think I would feel stupid, Ms Lapresle doesn't make you feel silly... no-one has ever said anything to me that's awful or anything... I don't think I'd let it worry me (first interview).

Davinia: I don't mind if I get it wrong, I mean, I don't think it's much of a big deal...I don't really worry about it too much...because sometimes, you know, I do get it right...(first interview).

Terry: Well, usually a bit silly. I try not to get answers wrong really. I'm usually pretty sure of most of the answers because I do listen to what the teacher is telling us about. Seem to be quite good at remembering all the information in geography and other subjects (first interview).

John M: It doesn't really worry me much. It's not really that much of a big deal (first interview).

Jim:...I've never been in a situation where I've got an answer wrong and the whole class has been roaring with laughter, so

Interviewer: ...how do you actually feel if you do get an answer wrong?

Jim: Well, I just got it wrong, I just have to find the right answer, I suppose (first interview).

The arrangement of these quotes represents a continuum of experiences of getting an answer wrong in the public space of 5L's classroom. It is no accident that the students that were most fearful of getting it wrong were all female and the students who said that the experience of getting it wrong was no "big deal" were three males and one female. This generalized pattern is best summed up in the words of a female pre-schooler who was interviewed on *Foreign Correspondent* (4th June, 1992): "the boys just very loudly say what they think and if they are wrong they just don't care". Even the quiet male students who were not talking aloud much in this class, were nevertheless saying either that they were unlikely to get an answer wrong (Terry) or that they did not care if they got it wrong - "I just have to find the right answer, I suppose" (Jim). Davinia is the only quiet female student who says that she does not worry if she gets an answer wrong, "because sometimes..I do get it right". It is the experiences of female students such as Davinia which disrupt my expectations and generalizations to show that not all the quiet female students experienced giving the wrong answer, in negative terms.

The description and analysis of patterns and exceptions are important because they 'give voice' and therefore visibility to the diversity of quiet female and male students' experiences of the evaluative climate and of the public/private spaces of one fifth form geography class. The next chapter is concerned with exploring in more depth the experiences of three female students in 5L.

CHAPTER VI

ACCESS TO THE TEACHER AS A LEARNING RESOURCE
THE EXPERIENCES OF AMY, ZOE AND DAVINIA

Amy's, Zoe's and Davinia's self-perceptions all have implications for their access to the teacher as a scarce learning resource in the classroom. These internal self-perceptions could be considered as the individual student's 'self-talk'; some insights into this realm of 'self-talk' emerged during the interviews. This chapter is concerned with exploring how female students' self-perceptions influence whether they initiate access to the teacher or not.

I. 'NOT PUTTING THE TEACHER OUT' - HEARING FROM AMY

(1) Background information

During the first interview, Amy described how much she took part in class discussion:

Amy: Not very much...I just sort of like to sit back and listen to what everybody else is saying and take in their point of view and stick with mine.(laugh)...sometimes I can participate quite a bit just sort of really depends.

Amy took part in only two public student-teacher interactions during the five lessons that I observed. She was silent during three of the five lessons, called on the teacher for help in one lesson, and took her turn (along with every other student in 5L) in the turntaking exercise during the women-focused lesson. Amy was named by the teacher and by five students as a student who did not take part in class discussion. Amy's, other students', the researcher's and the teacher's perspectives were all consistent in confirming that Amy is usually a silent student, seldom talking in the public verbal space of the geography classroom.

Nevertheless, Amy makes it clear that she participates by listening "to what everybody else is saying and take in their point of view and stick with mine." Amy's point of view challenges the implicit assumption of my research that participation in the public verbal space only means talking, when in fact listeners are as important as the talkers. The functional role of public verbal space would be compromised if everyone talked and no-one listened. However, if the listeners are mainly female students and the talkers are

mainly male students, these differences are not 'natural' but are associated with gender divisions. Newton (1988) has argued that "acceptance of a passive role in class discussions may in reality be acceptance of sex-stereotyped behaviour - an acceptance which clearly favours the boys"; it does not favour female students such as Amy. It is not possible to know whether Amy is 'naturally' quiet, or is 'naturally' a listener; however, it is possible to explore in further detail Amy's own reasons for her silence.

Amy has identified the protective function of silence - "take in their point of view and stick with mine." Amy has her own point of view that is protected by silence from ridicule or appropriation or misunderstanding by others. Silence means that Amy does not have to negotiate risk publicly and does not have to manage the social consequences of succeeding or failing (Alton-Lee and Nuthall with Patrick, 1993). Amy's assertion that she takes in other's points of view and sticks with her *own*, demonstrates her power of resistance to the male dominated public verbal space of 5L. However, Amy's strategy of silence that sustains her own point of view, is contested daily in a classroom where male experiences and opinions predominate in the public verbal space and where the geography curriculum is preoccupied with men's activities.

If boys are aiming at conquest it is difficult to know whether they have succeeded when girls become silent or whether, in mentally switching off, girls do in fact achieve their removal from the arena (Mahony, 1985:73-4)

However, silence has implications for Amy's learning. In order to construct new geographical knowledge she must engage in an enacted curriculum that is predominantly male-focused content and male students' experiences and opinions (Alton-Lee and Nuthall with Patrick, 1993). If Amy switches off, she misses the opportunities to construct new geographical knowledge. This raises the question of whether it really is possible to switch off? If Amy listens, and she has said that she does, how does she preserve her own ideas in the face of so much male verbal flotsam? *How* effective is silence in shutting out unwanted verbal input, and preserving female students' own points of view? The more effective the 'shutting off', the more likely the female student is also effectively 'shutting off' access to new geographical knowledge and by implication to one component of a school certificate qualification. An incomplete school certificate qualification may mean 'shutting off' access to employment and training opportunities for the future.

Amy has already (pages 94-5) given several reasons to explain why she does not participate in class discussion and these include her fear of getting it wrong and being laughed at by "Paul and co." It is clear that Amy was not able to effectively shut out the unwanted verbal input or laughter of Paul and the other students. However, the focus of this chapter is Amy's self-perceptions.

(2) 'Not putting her out'

The crux of the issue is conveyed in Amy's response to my request (during the second interview) for further explanation about why she did not ask the teacher, for help at times "like when she is giving out work?"

Amy: Because you sort of feel that asking her...you sort of feel dumb I suppose...feel like maybe *you are putting her out and there are other people that want things answered...* (my emphasis).

Amy elaborated further:

Amy: Yeah, because she has to come down and talk to you and teach the lesson and she has still got to teach the lesson and talk to you and stuff and she can't really do all that at once.

Interviewer: ...why do you feel that you are putting her out?

Amy: there's more than just me in the class, so I don't know, I just feel like I am putting her out

Asking the teacher for help can serve several functions; it is one way in which students are able to check their understandings of new material, it is one point of access to the teacher who is one of the learning resources in the classroom and it is one opportunity for students to practise verbal skills associated with finding out relevant information, a skill that is important in the academic context as well as in the context of day-to-day living. Amy's self-perceptions are really not perceptions about *herself*, they are perceptions about others' needs being more important and urgent than her own.

The socialisation of girls to take account of others' needs has been documented in detail (see Chodorow, 1978, for the initial theorising of gender identity). This pattern of Amy prioritising other's needs ahead of her own did not only apply in the geography classroom, and Amy was able to trace the pattern further back in her schooling:

Amy: ...if I don't know how to do something, I don't really ask...because from what you have done in primary school...I don't know, sort of a polite thing...I just don't do it.

Amy has described the process of not asking her teachers for help throughout her schooling as a form of politeness. In spite of Amy's hesitancy to ask her teachers for help, she has clear views on the role of the teacher:

Interviewer: ... what do you think the teacher is there for?

Amy: To help you learn. Yeah, and to teach you, and show you what to do, because you still sort of feel awkward

Interviewer: so you do see your teachers as being there to help you. What would be the best way that they could help you?

Amy: Probably on a one-to-one basis.

Interviewer: why would that help you best?

Amy: Because it is probably a better way to learn rather than in a group for myself,

Interviewer: can you tell me a bit more...why you'd learn better on a one-to-one basis?

Amy: Well there is more concentration between two people and if you don't understand something, and there is not somebody sitting beside you don't feel stupid asking again, because they might hear, and you think oh they're a bit dumb..

Amy has a clear analysis of how a teacher could best help her to learn. However, the fear of other students overhearing her asking the teacher the same question twice in order to understand something, would prevent Amy from doing so. Amy would prefer to forgo the opportunity of understanding something, so as not to appear stupid to others. It is ironical that Amy denies herself one of the means by which she could achieve an understanding of geography, by acting as though she already has that understanding in front of her peers. The fear of appearing "dumb" in front of her peers renders her silent. This has consequences for Amy's learning.

The next section of the interview explores the circumstances in which Amy does ask the teacher for help:

Interviewer: if you thought back over the last sort of week or so, how many times would you have asked Ms Lapresle for some help?

Amy: Probably none.

Interviewer: what about over the whole year? so far? [this interview took place at the end of July]

Amy: ...if there is more than just me that wants help I sort of get voted to ask...so if there's a group of us or two or three of us sitting where we are, I usually get told to, so I do, so I don't know how many times, 15, 10, something like that

Interviewer: and...those 10-15 times would be when there has been two or three from [your] group who have wanted to know something, not just you on your own

Amy: Yeah.

The sum total of two or three female students' needs for teacher assistance was the critical threshold to 'put the teacher out'. One female student's need was not a sufficient condition of entitlement to teacher help. Amy had asked the teacher for help 10 to 15 times during 25 weeks of schooling - approximately once every two weeks - and even then it was for help for herself *as well as* for one or two other female students at the same group of

desks. In the next section of the interview Amy describes how she gained the teacher's attention:

Interviewer: when you have been voted to be the one to ask...how would you get Ms Lapresle's attention?

Amy: Just put my hand up for her to see. Sometimes it takes a while but she gets there.

Interviewer: so when you say sometimes it takes a while, why is that?

Amy: Because she is helping other people.

Interviewer: so who do you think she is most likely to help in the class...?

Amy: People who ask

Interviewer: and who are they?

Amy: I don't know, either she is helping, or she's writing on the board or she's talking, she sort of helps the people sitting in front of us, [names two female students] and co, but they don't really ask for that much help and she just wanders around looking at people, organising bits and pieces

If a student was not confident of their entitlement to teacher attention in the first place, the associated processes of attracting and waiting for the teacher to come to you may add further dimensions to any uncertainty already experienced. Then add the risk of a student sitting nearby, hearing and judging the merit of the question, and the sum total of risk appears to outweigh any benefits that may accrue from gaining teacher help. As a teacher, I had taken for granted that the relatively private one-to-one attention provided by helping a student at their desk, was straightforward and one of the less risky transactions that could take place between a teacher and a student. Amy's perspective challenges this assumption and demonstrates the differential levels of risk that are experienced by individual students during what teachers may consider to be the least risky form of public student-teacher interactions - a student calling on a teacher to ask a question.

Amy preferred to ask "Davina or Zoe...just one of the people that I am sitting with. Like 'do you know that?' (laugh) sort of thing." It is relevant to put this in the context of other students' responses to the question: "if you don't know an answer who would you ask?" Eight (73 %) of the female students and 11 (58 %) of the male students said that they would ask other students for help first. A greater proportion of female students tended to ask their friends before asking their teacher for help; Amy's actions were not 'unusual' in this context.

Amy has provided an important angle on understanding why she seldom takes part in the public verbal space of any classroom and why she minimises her demands on the teacher. Unanticipated, emergent hypotheses and understandings are important in the process of discovering explanations for social phenomenon because they push researchers to develop theory to

explain the unexpected and to design future research to explore these hypotheses more thoroughly. Female and male students' perceptions of asking their teacher for help, will be incorporated into the design of future research.

II. COMPETING WITH OTHER STUDENTS FOR PHYSICAL SPACE AT THE TEACHER'S DESK - HEARING FROM ZOE

Amy's perspective has illustrated one dimension of why some students do not demand and get their fair share of access to the teacher as a resource. Zoe's perspective illustrates another dimension of accessibility to the teacher - competition with other students for physical space at the teacher's desk, and the implications for unassertive students.

(1) Background information

During the first interview, Zoe described how much she took part in class discussion:

Zoe: ...if I know it I'll say something. If I understand a little bit or someone else says something and then I get it, I'll say something then. But you don't want to make a fool of yourself cos you normally get laughed at.

Interviewer: Describe how often you take part?

Zoe: Only a few times.

Six students and the teacher named Zoe as a student who did not take part in class discussion. The observation data showed that Zoe had a average participation rate of one public student-teacher interaction per observed lesson. All three data sources were consistent in confirming that Zoe is a quiet student, seldom participating in the public verbal space of 5L.

(2) Competition for physical space at the teacher's desk

During the first interview, I asked Zoe: "how do you feel about getting out of your chair to go and see [the teacher] at her desk. Would you do that?"

Zoe: No, because I would find it really annoying doing that all the time and if you had to ask lots of questions and there would be lots of people around the desk at certain times, so it would be hard trying to get there.

In the second interview, I asked Zoe more: "when you say there would be lots of people around the desk at certain times, who is it likely to be around the teacher's desk in geography?"

Zoe: In geography, well I suppose...all the [students] in front of her desk, they are normally around her...[names two female students and three male students]

Zoe has pointed out the 'extra' access or ease of access to the teacher, for those students who sit at the desks closest to the teacher's desk. In 5L, the teacher's desk was located in the centre at the back of the room, right next to the group of six desks where two female students and four male students sat. Whenever the teacher sat at her desk to carry out administrative tasks, the six students sitting directly in front of her were able to ask questions without having to leave their desks or attract her attention. If Zoe, or another student asked a question at this time, there was the risk that one or more of the six students may overhear the question and evaluate its merits.

There were other times when access to the teacher was difficult:

Interviewer: ...what [do] you mean by "certain times", like what sort of times might...[there] be lots of students around the teacher's desk?

Zoe: Normally at the beginning when we come in really, and I suppose around the end of the class, but that's not very common...when we have got an assignment or something as well, they are always around then...

Zoe described the difficulties of competing with other students in order to gain access to the teacher:

Interviewer: why would it be hard trying to get there?

Zoe: well you have to wait for all those people to go through and like they just push through and you just be patient or something

Interviewer: so who is likely to be the ones that will push through?

Zoe: Oh I suppose those people [referring to the six students who sit in front of the teacher's desk], they are normally around there and they just, they don't really care that you have been waiting for so long and they just push you

Interviewer: do you think the teacher knows or realises that you have been waiting for a while?

Zoe: No, because she, her head is down and is busy doing stuff, talking

Zoe does not take part in the pushing for access and ends up waiting - "you just be patient" - which ultimately has the following effects:

Interviewer: so how does it make you feel if you have been waiting and some other students get in ahead of you?

Zoe: you feel stupid, you know, waiting all that time and people just pushing through and getting in there first

Interviewer: ...what other sort of effects does it have on you?

Zoe: The fact that you just don't go up there because you are waiting there for the whole period and you don't even get to ask a question or something

Interviewer: any other effects that it has on you?

Zoe: no I don't think so.

Interviewer: I suppose the one I was thinking of, was it means that you don't get to ask the questions that you wanted to ask as well

Zoe: Yeah.

Zoe gives up trying to compete with other students for access to the teacher at her desk, which means that she does not approach the teacher directly for help and therefore does not ask questions of the teacher. The sense of waiting is conveyed in Zoe's description "you are waiting there for the whole period" - waiting for teacher attention feels like a long time. In addition, Zoe "feel[s] stupid waiting while other students push through and get "in there first". The experience of going to the teacher to ask a question is undermining rather than empowering, even before the question itself is asked. Zoe not only has limited access to the public verbal space of the classroom but her physical access to the teacher is limited by other students who push in ahead of her.

I will highlight two possible interpretations of Zoe's reluctance to 'stand her ground' and keep her place in line for teacher attention. The first one concerns the difficulties facing female students in gaining and maintaining physical space in classrooms and in school grounds because of male dominance of these spaces; when female students do take a stand they risk repercussions in the form of verbal and/or physical violence (see Mahony, 1985). In this case, Zoe has identified a group of students that includes two female students and four male students as the ones who take up the physical space around the teacher's desk and as the ones who push her out of the way in order to get teacher attention ahead of her. Therefore, it is not possible to say that this was a clear example of male domination of the physical space around the teacher's desk. Nevertheless, Zoe was most concerned about her female cousin finding out information about her and passing it on to her sister - this threat was enough to silence her in the public verbal space of the classroom and it is likely that this same threat may be enough to stop her claiming her physical space in line.

The second interpretation concerns Zoe's lack of self-esteem evident in her 'acceptance' of the situation; other students push past her and she ends up "waiting there for the whole period". Rather than asserting her rights by saying loudly 'don't push in ahead of me' or by calling out the teacher's name, Zoe "feel[s] stupid". Zoe appears to have internalised a sense of failure over a situation that is not her fault, and she resolves the issue by not approaching the teacher's desk for help again. In other words, Zoe's resolution penalises herself because she does not gain teacher help as she deals with new geographical knowledge.

Zoe's self-perceptions and the effects of competition with other students for physical space at the teacher's desk, combined to influence her decision to not go up to the teacher's desk to ask questions. Internal and external conditions combined to restrict Zoe's access to the teacher as a resource. Zoe's self-perceptions and Amy's self-perceptions, played a role in limiting their own attempts in gaining access to the teacher. Amy and Zoe differed in their self-perceptions and their strategies, but the outcome was similar - both students did not ask their teacher for help with new geographical knowledge.

III. OVERESTIMATION AND THE IMPLICATIONS FOR FEMALE STUDENTS - HEARING FROM DAVINIA

Davinia was one of three female students who said that she would ask the teacher first, if she did not know an answer; this would suggest that Davinia is comfortable with initiating access to the teacher. What was different about Davinia's self-perceptions, that meant she would 'put the teacher out'? Davinia's self-perceptions will be considered from two angles: her perception of her participation in class discussion and her perception of her style of talking.

(1) Overestimation of participation in class discussion

When asked to "describe in your own words how much you take part in class discussion in geography" during the first interview, Davinia answered the question in terms of her social relations with others:

Davinia: I think I do to a degree because I am always open...I can get along with anybody sort of thing, it doesn't matter if they are shy or noisy, I can get along with them. So I think I do quite good in discussions and things. Because I say my ideas and then they talk about their ideas and sometimes combine them together...

Interviewer: What would be one word to describe how often you take part?

Davinia: The majority of times...especially if it is a topic that you are interested in then you will and if you know that answer, or if she is asking a question I put up my hand...if it's a group discussion usually I say my ideas and then listen to somebody else say their ideas and combine them together and come up with something, and then, you know, sometimes you have got to get up in class and tell everybody else our ideas or an assignment we are doing we have to speak about it so we sort of put all our ideas together and discuss them and tell the class...

During the second interview, I asked Davinia to be more specific: "...would you be able to come up with a figure for how much you take part during one period...like how many times?

Davinia: Probably in a period, it depends, sometimes I don't say anything, it depends if the teacher really asks me, sometimes I'll put my hand up and sometimes I won't, it

depends on how I am feeling too, if I am awake properly, but probably about four or five times maybe during a period...

Davinia's self-perceptions: "the majority of times" and "four or five times during a period" contrast with the observation data which showed that Davinia took part in 1.2 public student-teacher interactions per observed lesson, which was defined as quiet. The teacher and six students named Davinia as a student who did not take part in class discussion. There is a contradiction between the three data sources which requires explanation.

One explanation is that Davinia has over-estimated the frequency of her participation in the public verbal space of the geography classroom. In Chapter IV, male hegemony was put forward as one causal mechanism explaining why a teacher may have simultaneously over-estimated a particular female student's level of demands for attention and under-estimated two other male students' demand levels. Research has shown that male hegemony influences females and males to under-estimate male domination (Alton-Lee and Densem, 1992; Kelly, 1988). The converse is likely - male hegemony could influence females and males to over-estimate female levels of participation. In this case, Davinia's self-perceptions suggest that she has over-estimated her own level of participation.

Results from the pilot study for the current research, showed that some of the female students in the pilot study class had perceived themselves as having taken up a greater share of verbal space than they actually had (Nairn, 1992). This process of over-estimation of female participation, is supported by Spender's (1982:56) finding that:

...when the explicit aim has been to spend an equal amount of time with both sexes. At the end of the lesson I have felt that I managed to achieve that goal - sometimes I have even thought I have gone too far and have spent *more* time with the girls than the boys. But the tapes have proved otherwise. Out of ten taped lessons (in secondary school and college) the maximum time I spent interacting with girls was 42 % and on average 38 %, and the minimum time with boys 58 %. It was nothing short of a substantial shock to appreciate the discrepancy between what I *thought* I was doing and what I actually *was* doing (original emphasis).

If female students think that they are taking up more public verbal space, than they actually do, *and* if teachers think that they interact with female students more than they actually do, this has implications for female students. Davinia may think she is getting her fair share (or more) of public student-teacher interactions when in fact she is not. This may mean that Davinia will not try to increase her share of the public verbal space further. Male hegemony achieves a double foil; Davinia is relatively silent while at

the same time she thinks of herself as a talker in class discussion. What Davinia considers to be participation "the majority of times" is really relative silence "the majority of times"; if Davinia is satisfied with this level of public participation, it could act as a block to her getting her *real* share of public verbal space and access to the teacher. Davinia's self-perception that she talks when she is relatively silent, may inhibit her looking for opportunities to talk more.

On the other hand, it could be argued that female students' over-estimation of their participation in the public verbal space, could encourage them to take up more and more public verbal space and/or teacher attention. If female students appear to be comfortable and happy with the image of themselves as talkers in class discussion, then this could indicate a level of self-confidence conducive to increasing their share of public verbal space to a more equitable one. In other words they may be more receptive to strategies encouraging increased female participation, such as the women-focused lesson that will be discussed in the next chapter.

(2) A style of talking

Davinia's self-perceptions of herself as a particular kind of talker are important and positive; in the opening quote of this section, Davinia said that she did well in class discussions because she was "always open" and went on to say that "most girls are quite open" (first interview). In the second interview, I asked her to "tell me more about why you think most girls are quite open?"

Davinia: I think they might be a little bit more mature...than the boys, they're a bit more, the boys are more sort of noisy...and what they talk about is a bit childish, they fling rubbers and try to hurt each other and all that sort of thing...I think the girls are more open and sometimes can get on better doing their work...I don't know, some girls are a bit noisy, a bit giggly in class, [names two female students], I mean they seem to get good grades and good work and everything but they do tend to giggle and carry on with the two boys in front...[names two male students]they tend to sort of carry on a bit too much too...

But...I think the girls sometimes can be quite, more open, more sort of mature than the boys...in classes.

Interviewer: So when you think about the girls in this geography class, who would you say are the ones that are open or mature?

Interviewer: I think I am...I think I am quite open and I think some of the ones on the other side of the classroom, I can't think of all their names [names four female students]she's quite open and gets on with her work quite good, I think she is quite mature, and don't think there is really other people...

Interviewer: I am really interested in your use of the word open, can you tell me more about what you mean by open?

Davinia: don't hide their feelings, just say what they say, just don't hide anything and they don't mind answering questions and just being themselves, not being somebody else, talking about things that make sense and not giggling and carrying on,

just those sort of things in a mature way, just talking more like adults, well going towards that way, rather than being little kids or something that some people might tend to be like...that's what I am meaning

Davinia's self-perception is one of herself as an open and mature talker, and she perceives other female students as open and mature. Davinia uses the descriptors 'open' and 'mature' to refer to more than just a style of talking, they describe a way of being - "just being themselves" - and by implication Davinia is being herself. Davinia's self-perceptions are positive and probably contribute to her confidence about asking the teacher for help; this is clear in her response to the question "if you don't know the answer who would you ask?"

Davinia: The teacher...usually the teacher or your friend or if she doesn't know, you'd go to your teacher. Cos you think from a teacher, they'd know more anyway and they'd know the topic or what we have been discussing so they'd know the answer so I'd go to the teacher (first interview).

Davinia's confidence is further illustrated by her response to the question "would you want to change how much you take part in class discussion in any way?" which I extended by saying "would you take part more or less or the same?":

Davinia: Not less, probably about the same, because...I don't think I could take part anymore than I am... because...there's other people that want to discuss in the matter too so I let them be in with it too, not just myself. So I like to think, about the same, I like to sort of be involved about the same. Cos, any less you can't really, you can't get the ideas, and things you didn't know about before... (first interview).

Davinia is aware of the relevance of talking and asking questions, to the process of learning new geographical knowledge, and would not want to compromise this by taking part less in class discussions - "cos, any less you can't really, you can't get the ideas, and things you didn't know about before..."

Davinia is aware of other students' needs as well as her own - "I don't think I could take part anymore than I am sort of thing because...there's other people that want to discuss in the matter too so I let them be in with it too, not just myself". She suggests a balance of her own needs to talk in class discussion, with other students' needs to talk, rather than other students' needs ahead of her own. One mechanism for ensuring fair distribution of opportunities to take part in discussion, is implicit in Davinia's words. If every female and male student had an awareness of how much they took part in the public verbal space *and* an awareness of other students who "want to discuss in the matter too", this could facilitate a more reciprocal use of public verbal space (as well as of physical space) inside and outside of classrooms.

IV. THE DELUSION OF SELF-PERCEPTIONS ?

Amy's, Zoe's and Davinia's self-perceptions were powerful forces in shaping each student's expectations of teacher attention. Amy's and Zoe's 'self-talk' meant that they would not actively seek their teacher's attention, whereas Davinia's 'self-talk' meant that she would.

However, it is more complex than this, Amy and Zoe had accurate perceptions of their public participation patterns and Davinia did not. It is clearly not a simple matter of advocating positive 'self-talk' for female students, of deluding them into thinking that they can get teacher attention if they really want to, while the curriculum and the principles of class discussion remain untouched. The next two chapters are concerned with exploring what does happen when *interventions* were introduced with female students' needs in mind.

CHAPTER VII

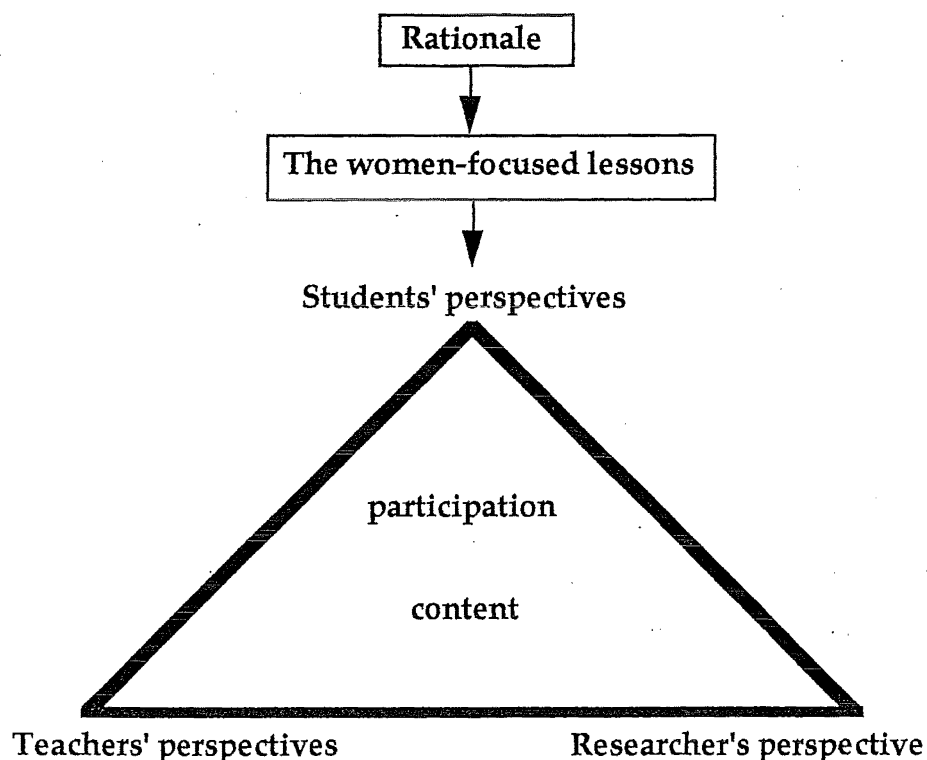
THE WOMEN-FOCUSED LESSONS

I. THE RATIONALE FOR WOMEN-FOCUSED LESSONS

The previous three chapters have described and explained female and male participation in the public verbal space of four geography classrooms, with a particular focus on the public verbal space of 5L. This chapter is concerned with the women-focused curriculum *intervention* and the *evaluation* of that intervention. What happens to female students' public participation patterns when the curriculum does include and value female experience?

Figure 15 shows diagrammatically all the elements that are involved in the *evaluation* phase and in this chapter.

Figure 15. The *evaluation* of the women-focused *interventions*.



The rationale will be considered, followed by an overview of the two lessons. The students' perspectives are central to the *evaluation* of the two women-focused lessons and they are considered first. The teachers' and researcher's

perspectives follow. Triangulation of these data sources summarises the findings of this phase.

(1) Socially critical action research

This research is modelled on the concept of socially critical action research; it is more than description of the existing situation, it is about "challenging an aspect of the existing social order (what was happening in the gendered construction of reality) in order to change it" and locating the individual classroom in the wider social context (Tripp, 1990). This research was designed to challenge on a small-scale the existing social order of male-domination of public verbal space in geography classrooms, in a way that places the responsibility for change in the hands of the educational community. It is the responsibility of the geography education community to provide a geography curriculum that includes and values female experience, which may in turn inspire female students to participate in the public verbal space of geography classrooms. It is also our (the geography education community) responsibility to manage classroom processes more effectively, so that quiet female and male students get more opportunities to talk in public. Therefore, the focus of the research on quiet female students should *not* be interpreted to mean that they are responsible for their public participation and that "'boys are boys' and therefore cannot change" (Kruse, 1992). Rather the focus of the research on the quiet female students, is one way in which their experiences are prioritised and 'heard'.

(2) The role of evaluation in action research

The women-focused curriculum intervention that will be described and evaluated in this chapter was small-scale; two women-focused lessons, (Chapter III:51-2) were developed and written to 'fit in' with two of the *Prescribed Common Topics* currently taught in fifth and seventh form geography. The purpose of this chapter is the evaluation of these lessons from the students', teachers' and the researcher's perspectives. This is an integral step in the action research process because it is not enough "to act in order to achieve certain hoped-for consequences...action always entails the risk that one's judgement...will be wrong and that things will turn out in ways other than was expected" (Carr and Kemmis, 1986). Evaluation is essential in order to avoid the "trap of generating common-sense strategies that lead to non-productive outcomes" (Alton-Lee and Densem, 1992).

(3) Towards a gender-inclusive school curriculum⁶

Male-focused lessons predominate in the current secondary geography curriculum; "the 'people' who are invariably the focus of geography are still implicitly male" (Longhurst and Peace, 1993). One example is the fifth form *Prescribed Common Topic: Resources and their Use* which is the study of farming and mining, or more specifically, the study of men's activities. This *Prescribed Common Topic* is taught to fifth form classes throughout Aotearoa/New Zealand and is essentially a series of men-focused lessons.

The study of farming in Aotearoa/New Zealand rarely includes the study of women farmers who farm on their own (one of many examples is 'Jean Douglas' in Scown and Nissen, 1993), or who farm in partnership with men farmers. There are a large number of geography teachers who choose to study coalmining in Aotearoa/New Zealand; I was one of those teachers for a short period of time and I noticed that the content materials were concerned solely with men. An historical perspective could include the role of women miners in nineteenth century Britain, to challenge the myth that women never coalmine(d) (see John, 1984). I then chose uranium mining in Australia, and utilised a textbook (Barr, 1989) that presented uranium miners in gender-unspecified terms. This did not alter the fact that uranium mining is a predominantly male activity. However, I noticed that the controversial environmental and indigenous land rights issues, sparked significantly more interest and public participation from female students, compared to their female counterparts during lessons on coalmining.

A 'gender-inclusive' curriculum would include content about women so that there is an overall balance of women-focused and men-focused lessons taught in the geography curriculum. The two women-focused lessons that were taught as part of the research process, represent a 'drop in the ocean' of male-focused lessons, and the students', teachers' and researcher's perspectives should be considered within this context.

⁶ See Alton-Lee and Densem (1992) 'Towards a gender-inclusive school curriculum: changing educational practice' for a comprehensive discussion of gender-inclusive curriculum.

II. THE WOMEN-FOCUSED LESSONS

The two women-focused lessons have been explained in detail in Chapter III. However, it is relevant to comment briefly on the two lessons prior to their *evaluation* by students, teachers and the researcher.

The women-focused lesson that was taught to 5L was centred around a video *The Price of Marriage* (New Internationalist, circa 1986), in which Daslima tells her story about the decision she made not to marry. The activities that followed the video included a turn-taking exercise during which each student said what they thought the main message/idea of the video was, listed expectations of girls and women here in Aotearoa/New Zealand and in Bangladesh, and wrote their own timetable alongside one for Daslima.

The women-focused lesson that was taught to 7H was concerned with Samoan women's migration to Aotearoa/New Zealand and their paid employment patterns. There was a particular focus on the pattern of Samoan women working nightshift in order to combine their paid and unpaid work. The implications of this work pattern were explored via a hypothetical timetable for one Samoan women with three children, in order to find out when she would sleep and for how long?

Both lessons were taught by the respective teachers of 5L and 7H, and were observed by me, the researcher. This observation data and the journal entries represent the researcher's perspective. The two teachers' perspectives were gathered via one-to-one interviews. The students' perspectives were gathered via a questionnaire and one-to-one interviews; their perspectives will be explored at the collective then at the individual scale.

III. STUDENTS' PARTICIPATION DURING THE WOMEN-FOCUSED LESSONS - THE COLLECTIVE SCALE

This section of the chapter is concerned with exploring the students' perceptions of their participation during the women-focused lessons, at the collective scale - the patterns in the perceptions of female students and of male students as collective groups.

A questionnaire was administered the day after the women-focused lessons were taught to 5L and 7H. The results relevant to the question

concerning the students' own perceptions of their participation during the women-focused lessons, are presented in Tables 15 (a) and (b). The wording of the question was: "Did you participate more in this lesson? Eg. did you put your hand up more? were you called on more?" (see Appendix 4 for a copy of the questionnaire).

Table 15. Did you participate more in this lesson?

(a) The results for 5L.

5L	much less	a little less	the same	more	much more
female	0	1	5	4	1
male	2	5	10	0	1

(Absent: 1 male student)

(b) The results for 7H.

7H	much less	a little less	the same	more	much more
female	0	0	2	4	0
male	0	4	3	0	0

(Absent: 4 female students; 1 male student).

The pattern is similar for both 5L and 7H. There was a clustering of female and male students who considered their participation during the women-focused lessons to be "the same" as their usual participation patterns (which could range from silence to frequent participation), in both 5L and 7H. In both classes, the students who said that they had participated more were mainly female students (with one exception - a male student in 5L), while the students who said that they had participated less were male students (with one exception - a female student in 5L). Over both classes, nine of 17 (53 %) female students said they had participated more, and 11 of 25 (44 %) male students said they had participated less.

These results were positive given that the aim of the women-focused curriculum intervention was to increase the public participation of female

students. More specifically, in the group of nine female students who said that they had participated more, there were four quiet female students who had taken part more than usual. However, it was not positive for one female student of 5L, who said that she had participated "a little less than usual." This female student had an average participation rate of four public student-teacher interactions per observed lesson and had not been selected for interview in the initial phase, so it was not possible to explore her perspective further.

The results were also positive within the context of the theoretical argument that some male students must take part less in the finite public verbal space, in order for other students to have opportunities to take part more. In the group of 11 male students (from both 5L and 7H) who said that they had participated less, there were five male students who were frequent participants. However, there was one male student from 5L, who said he had participated "much more than usual." This male student had an average participation rate of three public student-teacher interactions per observed lesson and had not been selected for interview either.

IV. STUDENTS' PARTICIPATION - THE INDIVIDUAL SCALE

Individual female and male students' perceptions of their participation during the women-focused lessons, were also explored. The primary focus will be the data generated by the one-to-one interviews with twelve students - two from 7H and ten from 5L. The two female students - Lisa and Helen - from 7H were already relatively frequent participants in the public verbal space and their experiences of the women-focused lesson was intended to present a contrast to the ten quiet students - seven female and three male - from 5L.

Six of the nine female students (from both 5L and 7H), who said that they had participated more during the women-focused lessons, were interviewed on a one-to-one basis after the women-focused lessons. Figure 16 presents the female students' perspectives; the quotes have been arranged with the female student who said that she had participated "much more than usual" first followed by the five female students who said that they had participated "more than usual". The female students are responding to a question: "Why do you think you participated more than usual during this lesson?" (the wording was "much more" in Jessica's case).

Figure 16. What the students who participated *more*, said about the women-focused lesson.

Jessica: Because I just liked it. I liked it (5L, first interview).

Mae: ...I think I answered more than I would have because I found it interesting so I watched it and got involved in it...

Interviewer: so it felt like you participated more?

Mae: Yeah, because I watched it more.

Interviewer: so when you say you watched it more, what do you mean by that?

Mae: Well if it was boring I wouldn't really take it in and listen to what they were saying but because I found it interesting I was thinking about what they were saying about her life and what she does (5L, second interview).

Nina: ...I suppose I might have done a bit more than usual because she actually went around the class and asked everyone...to say an idea...I actually said something you know to the whole class...(5L, second interview).

Zoe: ...I think I might have put a bit more in than usual

Interviewer: ...so why did you participate a bit more than usual?

Zoe: Because I found it interesting, it wasn't the usual boring geography lesson, it was more interesting

Interviewer: so why was it more interesting for you?

Zoe: ...she was showing us what was happening in Bangladesh and what goes on, you could actually see it with your own eyes and instead of Ms Lapresle just reading it out and you know it just goes through one ear and out the other... (5L, second interview).

Lisa: I probably participate about three or four times during a lesson [referring to her usual pattern]...like probably only another one or two times[referring to the women-focused lesson]...

Interviewer: so why do you think you participated...a little bit more than usual?

Lisa: Well I was interested, I asked questions about...why were those percentage of people coming?...[the teacher] said...well why do most people come here? That's what he said to me, and I said employment, jobs and basically answered my own question... (7H, first interview).

Helen: Oh well when we were doing bits about the Pacific Islands, migrating from the Pacific Islands... because I knew about the subject[Helen had lived in the Cook Islands, Tokelau and Samoa].(7H, first interview).

A common theme in the female students' explanations of why they had participated more than usual during the women-focused lesson, was that they found it interesting and/or relevant to their own experiences. Mae's explanation extends the concept of participation; Mae said that she had participated more "because I watched it more...because I found it interesting I was thinking about what they were saying about her life and what she does". Watching and thinking about the content of the lesson is participating in the content; Mae has highlighted the importance of this hidden dimension of classroom participation, a dimension that would be difficult to 'measure'.

Jessica's words encapsulate the essence of what many of the female students said about the women-focused lesson: "I just liked it. I liked it".

The next group of students - three female students and two male students (all from 5L) - said that their participation during the women-focused lesson was "about the same" as it usually was.

Figure 17. What the students who participated *about the same*, said about the women-focused lesson.

Nichola: Probably just the same as maybe other classes where you have been asked the question because you were sort of asked to read out what you had written down so it was probably just the same, it wasn't a voluntary thing. It was just the same as another class...it was probably a longer response which makes it more of an impulse but you probably couldn't really say it was that much more. It was probably more than a one answer question but only because it was a longer sentence.

Interviewer: So you gave, did you give more of your self?

Nichola: Yeah, more of an answer, more of what I thought than just a one answer question (5L, second interview).

Amy: Not much, and not too much. About average but I didn't, I wasn't really willing, wasn't really - pick me, pick me sort of, just like sit back and listen to what everybody else had to say and then if I had something to say I would discuss it between our group (5L, second interview).

Davinia: Just the same as I usually do in other topics...

Interviewer: how much do you take part in those...other topics?

Davinia: ...it depends what the topic's like, if I enjoy it or not...(5L, second interview).

Terry: Just...usually about the same as I normally participate [which is]...a bit more than most other people would...(5L, second interview).

John M: [The same] As I normally do.

Interviewer: ...how much do you normally participate?

John M: Oh probably not much.

This group of students were asked about their usual patterns of participation in order to gain an idea of what "the same" meant, and this diverted attention away from their explanations of their participation in the women-focused lesson. Nevertheless, Nichola said that she gave "more of an answer...it was probably a longer response which makes it more of an impulse..." The length and quality of the public participation event as well as individual student's previous participation patterns, are all important factors that need to be taken in to account in gauging whether a student has participated more than usual or not. Nichola's words suggest that she participated more than usual, yet she maintained "the same" description because "it wasn't a voluntary thing". This relates to Ms Lapresle's definition

of participation in the previous section and continues to raise questions about what is *real* participation? Nichola's "longer response" was just as valid as a form of participation as a voluntary response.

There was one male student in the group of twelve interviewed students who indicated on the questionnaire that he had participated "the same" as usual but during the interview changed this to:

Jim: Yeah, a little less.

Interviewer: can you think of why you perhaps took part a little less during that lesson?

Jim: No. I can't (5L, second interview).

Jim was one of the three quiet students in 5L, and said that he had participated "a little less" during the women-focused lesson, in spite of the turn-taking strategy. Strategies that encourage quiet male students to take part in public verbal space also need to be developed and evaluated (see Appendix 1).

V. STUDENTS' PERCEPTIONS OF THE WOMEN-FOCUSED CONTENT -
THE COLLECTIVE SCALE

The students from both 5L and 7H, were asked in the questionnaire administered the day after the women-focused lessons: "do you think this lesson covered an important aspect of geography?" The results relevant to this question are presented in Table 16 (a) and (b).

Table 16. The importance of the content.

(a) The results for 5L.

5L	no importance	little importance	some importance	very important	extremely important
female	0	0	4	4	3
male	2	5	7	4	0

(Absent: 1 male student).

(b) The results for 7H.

7H	no importance	little importance	some importance	very important	extremely important
female	0	0	4	2	0
male	0	4	2	1	0

(Absent: 4 female students; 1 male student).

Table 16 (a) and (b) show a similar gendered pattern in the students' perceptions of the geographic importance of the respective women-focused lessons. There was a clustering of female and male students who considered the lessons to have "some" geographic importance. Over both classes, nine of 17 (53 %) female students said the content was "very/extremely important," and 11 of 25 (44 %) male students said it was of "little/no importance." No female students said that the content had little or no importance.

It would be impossible to infer from these quotes alone, that the lesson that these three students were writing about was a women-focused one. Again there is the use of the gender-unspecified word 'people', that was identified in the language of the female students from 5L. The use of the word 'people' renders invisible the fact that this "case study" was primarily about Samoan women, that the primary focus was the "thoughts and reasons" of Samoan women. Colin thought the "effect on the environment at the source and destination" was the very important aspect; there was no mention of Samoan women.

The four male students who thought that the women-focused lesson covered an aspect of geography of little importance, explain why:

Because I feel it's not nearly as important as the Asian migration into New Zealand, because their effects are more important on the country than Samoan women and Samoans for that matter (Nick).

Due to the fact that it focused on a minority group of a minority group (double minority) because they were Samoan women and also because the Asian migration to New Zealand is alot larger, so we should study this (Andy).

I found it remotely interesting but not what I expected to be doing in geography (Danny).

Does not really apply to the world scheme of things (Greg).

These four quotes speak for themselves in terms of strong gender and cultural bias.

One pattern that emerges from consideration of all of the students' quotes in this section, is the general, gender-unspecified explanations for why female and male students considered the women-focused lessons to be very important; this contrasted markedly with the pattern of gender biased and culturally biased explanations for why male students considered these two lessons to be of little or no importance to them.

VII. THE TEACHERS' PERCEPTIONS

Ms Lapresle and Mr Hughes were individually interviewed, one month after they had taught the respective women-focused lessons. The delay occurred because the interviews were arranged with the two teachers' busy schedules and with the end of the research process. Nevertheless, the one month time lapse is part of the context in which the two teachers' comments should be interpreted.

The two women-focused lessons had been written to 'fit in' with what was being taught at the time in the respective classrooms and the lessons were not announced as being women-focused because the research was concerned with exploring the students' perceptions without prior framing that might have implied particular expectations. Therefore, the following question was asked of Ms Lapresle: "do you think any of them noticed that it was a lesson that had been 'set up' in some ways?"

Ms Lapresle: I don't think they did. I don't think they had any idea at all...although you had written it...I had...interpreted it slightly differently to you ...I put it in my own language...they are quite used to seeing me walk around with a piece of paper and teaching from that...and I do often show them snippets of videos...

Similarly, Mr Hughes was asked: "do you think they noticed that the lesson was specifically on women? Samoan women?"

Mr Hughes: ...I think probably they had some indication that it was kind of a special one but because it was in context with what we were doing elsewhere over the previous periods and afterwards I don't think they thought it was out of place.

Interviewer: ...what sort of indications were there?

Mr Hughes: ...up until now we have been looking generally at figures for both genders when we were looking at migration but here we were looking specifically at one gender and for that reason I think it highlighted that aspect which I hadn't done with...any other forms of migration...I think also the fact we said that this [the research on which the lesson was based] was done by a local person...

The sections of the interview with Ms Lapresle, describing her perceptions of female and male students' participation during the women-focused lesson will be presented first, and this will be followed by the relevant sections from the interview with Mr Hughes.

(1) Hearing from Ms Lapresle

The initial interview question about the women-focused lesson taught to 5L, asked whether: "...there [were] any comments from students after the lesson on Daslima, the girl in Bangladesh?"

Ms Lapresle: Yeah, when I said to them that I would show them the video of a *City of Joy*, somebody said oh it's not going to be like the one we saw the last time [referring to *The Price of Marriage*]...a couple of people [had] said to me well what was the relevance of it?

Interviewer: can you remember who they were?

Ms Lapresle: No, I can't but I do know that they were boys...and I made some comment to them about the validity of it and the relevance of it...I said that I thought it was really important for them to see how people lived in other cultures and that how for a lot of people there was no choice, that it was a very limited choice...And I think that there would still be a significant number of people who couldn't see the value of it [the video/women-focused lesson]...You know you could probably talk to them till you were blue in the face and there would still be people that it wouldn't make any difference to them.

Ms Lapresle continued the process of challenging some students' comments about the lesson beyond the women-focused lesson; her response also affirmed those students who considered the lesson to be relevant. Questioning about the gender of the "significant number of people who couldn't see the value" of the video/women-focused lesson, revealed:

Ms Lapresle: I think that generally you know without this seeming sort of sexist, I would have to say that it is probably the boys and that it is not an issue for them whether or not a girl gets married when she is 14 ...I think that they all thought [the man] is a lot older than her...I mean they were not going to experience the same feelings that the girls are going to...it is not them that has to think, imagine sleeping with him or something like that, whereas the girls would be much more likely to think that, I think...

Ms Lapresle went on to talk about "they" and further questioning revealed that "they" referred to particular male students in 5L:

Ms Lapresle: ...some of them have very strong opinions and even though they are quite young, they're quite prejudiced in their thinking already and it is almost like they don't really want to know...and it is just a story anyway...

Interviewer: so you think...that there were students who thought it was just a story, not true?

Ms Lapresle: People like [names two male students] and yeah the boys, but...certainly not all of the boys, that is why I am reluctant to say it and to genderise it because I think it is a small minority but quite a vocal minority

Ms Lapresle has identified an important issue that has remained hidden in Spenders' (1982) writing about gender patterns in classrooms. There are male students who do not dominate the public verbal space of the classroom and who do not overtly disrupt or protest about women-focused content, although these male students indirectly 'benefit' because other male students dominate the public verbal space and the enacted curriculum. These quiet male students experience an enacted curriculum that is shaped by male interests and experiences, even when they are not involved in shaping it.

The next section of the interview is concerned with the teacher's perceptions of the pedagogy of 5L's women-focused lesson, in other words with the use of the turntaking method as one strategy for encouraging all students to participate:

Interviewer: What did you notice about the students' responses during the lesson on Daslima?

Ms Lapresle: I can't really recall anything different...I don't really consider it[referring to the turn-taking method] participation because...I mean everybody has their own way of interpreting that, but I basically gave them no choice, they had to participate because I asked everybody a question so I don't really see that as active participation when you are not given a choice, with the exception of [names one male student] who you know just would have nothing to do with it, I mean he just refused to comment at all. So I think that it was...set up in such a way that you couldn't really judge if participation was different

Interviewer: so what's your definition of active participation?

Ms Lapresle: Well I think that active participation is when student's volunteer information and they don't have to be called upon to do that...if it is going to be active I think that they, the initiative has to come from them not from me. I shouldn't have to prompt them...I would ask a question but I wouldn't have to say [names one male student] da da da da da, you know, he would actively, he would put up his hand and volunteer the information...I would call that active yeah.

Ms Lapresle's definition of active participation is important because it reflects one teacher's idea of what constitutes 'real' participation. Individual teachers' attitudes to and expectations of specific forms of public participation will be interpreted by their students' and will therefore be one influence on these students' participation roles. Teachers' attitudes and expectations will also influence their choice of strategies for encouraging public participation.

The 'actively' participating student that sprang to the teacher's mind when she was extending her explanation of 'active' participation, was a male student. This raises questions about what constitutes 'real' participation in public, what will be noticed and counted? It is not enough for female students to talk in public, it is *how* female students talk in public that counts, and the male standard was employed by this teacher as the 'measure'. This research was concerned with *how* to encourage female students to publicly participate but there is more at stake than this; even if this goal may have been partially realised during 5L's women-focused lesson, public participation via the turn-taking method was not 'active' (*read* 'real') participation. Female students who seldom publicly participated in the public verbal space of the classroom, yet said aloud what they considered to be the main message of the video *The Price of Marriage*, were not 'actively' participating in terms of their teacher's definition. The students' own perceptions of their participation via the turn-taking method will be presented in the next chapter, their words challenge their teacher's definition.

(2) Hearing from Mr Hughes

The initial interview question about the women-focused lesson taught to 7H, asked whether: "...there [were] any comments from students after the lesson about Samoan women?"

Mr Hughes: No, not really, no I can't recall any...I sensed that they were interested in...the difficulties that women from Samoa face, and I think they were quite surprised about the women having night shift and things like this, I think they learnt quite a bit from there that was, I don't think they expected. But there wasn't any major comments about it, no.

I then asked Mr Hughes: "what did you notice about the students' responses during the lesson on Samoan women?"

Mr Hughes: I didn't notice any difference in terms of who were answering or commenting so much, no I think it was really business as usual, as far as reaction by the group, that would be my feeling.

Interviewer: So you would say that about participation of students in the lesson as well then?

Mr Hughes: Yes.

Mr Hughes uses gender-specific language in his comments about the lesson; I also noted this in my journal - "it was great hearing the word 'women' mentioned so often" (K.M. Nairn, 21st June, 1993). Mr Hughes has highlighted what he thought the students were interested in - "the difficulties that women from Samoa face"; I highlighted this aspect in my journal entry for different reasons:

Mr Hughes kept referring to the problems that Samoan women faced - there was an overall negative framework rather than any admiration for what Samoan women were achieving in a new setting (K.M. Nairn, 21st June, 1993).

This issue was written up further following the lesson that I observed the day after the women-focused lesson:

Mr Hughes' framing of Pacific Island migration in terms of problems only/entirely, gave me...cause for concern; there was no evidence of what's positive about remaining in the Pacific Islands (K.M. Nairn, 22nd June, 1993).

It is important that content about women and girls includes the positive as well as the negative aspects of being women, so that female students and male students do not equate female existence with all that is ~~SEE FOR A~~ negative. The title of the video *Poverty is Women* (currently being sold to schools in Aotearoa/New Zealand, by World Vision) illustrates this 'women=negative' equation. It is important for female students to hear and know about what is positive about being a woman here in Aotearoa/New Zealand, in the Pacific Islands, and elsewhere in the world. This is not to advocate denial of the negative and powerless experiences of many women, it is about presenting both sides of women's experiences. If female students in schools only hear and learn about the powerlessness and the negativity of being a women, they may accept this as a necessary and inevitable 'fact' of their existence rather than knowing that they have the power to act on and in their worlds.

VIII. THE RESEARCHER'S PERSPECTIVE

The journal entries following the women-focused lessons taught to 5L and 7H, documented my impressions of female and male students' reactions to the lessons. The first quote refers to 5L:

I felt at times that the students weren't taking it seriously...but on further reflection it was some of the boys who weren't taking it seriously, eg. Paul, Nicholas B., who in turn influenced Natasha and Mary; and Hamish, Anthony and others at that group. Compared with Jessica/Mae/Amy/Davinia/Zoe who were taking it seriously plus Nina/Nichola and Kate/Tammy (K.M. Nairn, 1st July, 1993).

The next quote refers to 7H:

My impression was that there were a greater number of students involved in the lesson and certainly a greater proportion of female students seemed attentive and to be participating more in discussion than I have seen them at other times especially Helen, Anne and Robyn...Ruth sat by Lisa [during this lesson] and this seemed to bring her into the class and on focus compared with her previous seating position by Andrew and near Danny, Dave, Greg.

There was a clear difference between the left side of the room (facing the front) and the right side during this particular class. The right side included Greg, Danny, Dave who all talked/laughed/generally ignored and attempted at times to sabotage this lesson, more so than other lessons where I notice them as disruptive, but this time they were even more disruptive particularly Greg, eg. they were all trying to balance pens between their upper lips and nose at Greg's instigation. Each time there was note-taking or an exercise they had to be prompted to do it. This contrasted with the remaining ten students [six females and four males] who remained on task, attentive, interested throughout the lesson. I liked how Lisa/Ruth immediately raised questions about how would the woman sleep and look after her children - this is what I had hoped for. Overall; I thought it was a valuable process to carry out this curriculum intervention (K.M. Nairn, 21st June, 1993).

Both the journal entries describe a general pattern of female students being interested in the women-focused lessons and of some male students being disinterested to the point that they attempted to sabotage the lesson. Spender (1982:57) found a similar pattern of "a group of boys who will engage in uncooperative and disruptive behaviour if they do not get material that they find interesting".

Both the women-focused lessons were observed by myself, using the same observation schedule that had been used for all the other observations. The results from the observations of lessons during the *investigation* phase and from the observations of the two women-focused lessons, are presented for comparison in Table 17.

Table 17. Female and male students' 'share' of public student-teacher interactions during the *investigation* phase, compared with their 'share' during the *interventions*.

all lessons <i>except</i> women-focused lesson		women-focused lesson <i>only</i>	
female students' 'share' (%'s)	male students' 'share' (%'s)	female students' 'share' (%'s)	male students' share' (%'s)
5L 36	64	41	59
7H 37	63	40	60

(Note that these results have been calculated to take account of absences and of differential numbers of female and male students, using the methods described in Chapter IV).

The results show that *during the* women-focused lessons female students in 5L and 7H, took part in a greater 'share' of public student-teacher interactions than they did during all the other lessons that were observed. The female students of 5L increased their 'share' of the public student-teacher interactions from 36 % to 41 %, and the female students of 7H increased their 'share' of the public student-teacher interactions from 37 % to 40 %. In the case of 7H, the women-focused lesson provided a large number of opportunities for class discussion; however the length of the video shown to 5L, meant that "there wasn't alot of opportunity for class discussion and for students to interact with the teacher" (K.M. Nairn, 1st July, 1993). Nevertheless, within the context of two women-focused lessons that provided differential amounts of time for class discussion and student-teacher interaction, female students took up a greater 'share' of the public verbal space *but* it was *not* an equitable 'share'. Even when the content of a lesson is women-focused and some male students were not interested, they still managed to take up a greater 'share' of the public student-teacher interactions, 59 % of the public verbal space in 5L and 60 % in 7H.

During the women-focused lessons, male students in both 5L and 7H, were frequently *named concerning behaviour*. In 5L, there was a total of 14 instances where the teacher *named students concerning behaviour*, 13 of these 14 instances involved the naming of particular male students. In the one instance where a female student was *named concerning behaviour*, the teacher said "don't encourage him"; this female student was implicitly held

responsible for a male students' disruptive behaviour (K.M. Nairn, 1st July, 1993). In 7H, there was a total of 21 instances where the teacher *named students concerning behaviour*, 20 of these 21 instances involved the naming of particular male students. The observation category - *teacher naming students concerning behaviour* - was one 'measure' of how male students made trouble about the content of the women-focused lessons and gained teacher attention, even if it was negative attention.

"Many teachers [and researchers] can document what happens in a mixed-sex classroom where boys are not the focus of attention - there is trouble!" (Spender, 1982:57); she explains why:

in a sexist society boys assume that two thirds of the teacher's attention constitutes a fair deal and if this ratio is altered so that they receive less than two thirds of the teacher's attention they feel they are being discriminated against.

This could explain why some male students in both 5L and 7H, were uncooperative and/or disruptive and therefore *named concerning behaviour* by their teachers, during the two women-focused lessons. The teacher naming male students concerning their behaviour is also one part of the explanation for why the male students of 5L and 7H, still maintained a greater 'share' of the public verbal space in spite of women-focused content - the teachers said their names into the public verbal space for all to hear, confirming the existence, the visibility of certain male students.

IX. TRIANGULATION OF THE DATA SOURCES

The students' perspectives and the researcher's perspectives converged to confirm that some female students had taken part more than they usually did in the public verbal space of their classrooms. The increased participation of these female students contributed to the slight increase in female students' 'share' of public verbal space in the respective classrooms. Both teachers did not notice this *slight* increase; Mr Hughes said that it was "business as usual" and Ms Lapresle 'discounted' the participation from the turn-taking exercise. Despite apparent contradictions, the teachers' perspectives do converge with the researcher's perspective, because male domination of the public verbal space continued during the two women-focused lessons. At the collective level of data, nothing much had changed.

However, the individual student's perspectives told a different story. Female (and some male) students considered the content to be important, one female student said she had watched more, another said that she had given "more of an answer" and another "said something to the whole class." The women-focused lessons had made a difference for a number of individual female students in both classes. The most pertinent evaluation is the female student who said "I liked it."

CHAPTER VIII

EVALUATING THE RESEARCH

I. THE POLITICS OF CHANGE - STRATEGIC FEMINISM

The most important goal of this research and this thesis is to make a contribution to positive change for female students in secondary geography classrooms in Aotearoa/New Zealand. Achieving change for female students within the current educational system is considered to be a strategy of liberal feminism. However, it is not a simple process of naming and pigeon-holing feminist strategies, it is about matching the strategies to the struggle and the desired outcomes. I have chosen from my eclectic collection of feminist strategies, strategies that have liberal feminist and poststructural feminist characteristics. I have chosen on the basis of their potential for achievement of my stated research goals rather than on the basis of their academic status, and with disregard for real or imagined incompatibility of the respective feminisms. The potency of contemporary feminist theory and research does not derive from its intellectual purity, but from the kinds of struggles it makes possible (Larner, 1993). The politics of change are dependent on the most effective strategies to achieve stated political goals, rather than on what constitutes "more or less progressive feminist politics" which only achieves the silencing of other feminist politics (Larner, 1993).

Strategic feminism is grounded in a contextualized notion of agency; "a notion of agency born of history and geography" and anchored in the history of specific struggles (Mohanty, 1991). It is about recognising myself, female students and female teachers as agents in our respective contexts within the broader social context of education in Aotearoa/New Zealand at this point in time. Strategic feminism involves taking action "because we do not need, and indeed never will have, all the answers before we act...it is often only through taking action that we can discover some of them" (Bunch, 1983). Agency, action, and evaluation of action by those it directly affects, are the elements of strategic feminism and therefore, of this thesis.

The lines of loyalty and of accountability go directly from myself as feminist student, teacher and researcher, to the female students and to the female teacher who were most involved in this research. Loyalty and accountability to the geography teaching community and to the research

community follow. These multiple lines of loyalty and accountability to both academic and non-academic audiences (Yeatman, 1993, cited in Lerner, 1993) will be the most apparent in the final two chapters. This chapter has been written with female students, particularly quiet female students *in mind*. The final chapter has been written *for* an academic/teaching audience, so that our students might benefit. However, female students are agents of change in their own right and one of these 'agents' will have the final 'say' in the thesis.

II. REFLEXIVITY IN THEORY AND PRACTICE

"Reflexivity involves consistently evaluating, reflecting on and modifying our own practices" (Alton-Lee and Densem, 1992). The reflexive moment in the thesis will be approached from three perspectives - the female students', the female teacher's, and the male students'. I will utilise the reflexive moment to interrogate the theory and practice of this research, specifically in terms of whether it contributed to the well-being of the female students who took part in it?

The theory and practice of this research centre around two key arguments. The first one concerns the relevance of public verbal skills for competing effectively in labour and training markets; this is of particular importance for female students because women are still underrepresented in well-paid occupations. *But* strategies encouraging female students to practise their public verbal skills in classrooms, are problematic if the school curriculum retains its male-focus. Both these arguments define the pragmatic as well as the idealistic nature of the research. A simplistic summary would be - the geography curriculum should be rewritten to include and value the experiences of women and girls, this may inspire female students to talk in public about their opinions and experiences. This not only achieves the stated goal of encouraging female students to practise their public verbal skills which are necessary in interviews for training, jobs, and promotion, but it also achieves an unstated goal - female students who talk in the geography classroom shape the enacted curriculum. These are clearly large-scale aims being addressed by small-scale research.

III. TOWARDS A GENDER-INCLUSIVE GEOGRAPHY CURRICULUM

(1) Female students' perspectives

The most pertinent evaluations of the women-focused lessons were the ones initiated by the female students themselves, unprompted by specific questions about the lessons. In the early part of the second interview with Nichola, we talked about her definition of discussion and I asked her if she "could think of any topics or any times in class since [the] last interview which [she had] wanted to discuss...?"

Nichola: ... possibly more on the video of the, what was the girl's name - yeah Daslima...I suppose a case study on her, you could discuss that more.

Nichola made this comment two weeks after the women-focused lesson about Daslima had been taught; the lesson had been interesting enough to remember and Nichola implied that she wanted more - "a case study on [Daslima], you could discuss that more".

Davinia also referred to the women-focused lesson, unprompted, when I asked "what have you been learning in geography so far this year?", Davinia described what had been covered since the beginning of the year then focused on what they had been doing more recently:

Davinia: at the moment we are learning about population in Monsoon Asia and about the different way of life...girls are sent doing their jobs and the boys are sort of doing their jobs as well

Interviewer: so what jobs are the girls doing?

Interviewer: Well we watched one video of this girl who was 13 years old and I think it was Calcutta that she lives in and she had to do all the sort of housework and help her mum and the cooking and a few things like getting water and that sort of thing and the boys sort of had to work and do jobs like there was one they had working in a lollie factory...putting on the wrappers on the lollies and some of the boys had to chop up and break all the stones...and how they get married at quite a young age...she didn't want to marry this man because she didn't really like him that much but the family were quite poor and he was quite sort of rich and that was one way of helping the family but she didn't want to marry this person so she got the whole family and all the kids and they started working to pay off the debts and things so she didn't have to get married (second interview).

Davinia gave a thorough synopsis of the video, one month after it was shown; Davinia's review suggests that she considered it important enough to learn, understand and remember. These two female students (out of the seven who were interviewed from 5L), identified the women-focused lesson specifically as interesting and worth remembering.

Amy considered the video to be interesting enough to make the following suggestion in response to my question "what other activities would you have liked to do, if there had been more time in the [women-focused] lesson?"

Amy: I don't know, maybe go over and watch the video for a second time because we watched it once, usually when you watch a video twice...[you] sort of get more out of it, and pick it up more I suppose (second interview).

The perspectives of these three students have been highlighted to illustrate that the strategy of a women-focused lesson created a curriculum experience that these female students remembered, wanted to discuss more, and in the case of Amy wanted to repeat.

However, for some of the female students who watched the video, what they initially noticed were the negative aspects of Daslima's and other women's existence in Bangladesh. In response to my question "what did you think of the video about Daslima?", Amy and Zoe said:

Amy: I thought it was pretty disgusting really, that the women get taken advantage of, especially the young girls, and that they get married off to somebody they don't even like or don't even know, yeah, I wouldn't like to live there...I mean you saw the men working, but they weren't working like the women were, the women sort of looked like they were working day and night and they were tired out...(second interview).

Zoe: I think it was quite horrible how they organised the wedding and stuff and she didn't like that guy and she had to marry him because he asked and I think it is quite true...(second interview).

It is important that women-focused content presents women as agents in their worlds, who make decisions; if it does not do this, it feeds the myth that all women passively accept their 'fate' of powerlessness. If the content of the video feeds this myth, then it does not contribute to female students' sense of themselves as agents in their own worlds. In spite of Amy's initial negative frame of reference she did recognise Daslima as an active agent "I can't really think of much that was positive except for the fact that she decided that she wasn't going to marry, and goes to work, that was good..."

It is clear that women-focused content must be carefully presented, and that a chance to debrief must be provided; the second round of interviews did provide an opportunity to debrief but in some cases it was up to one month after the lesson.

In contrast, the following three female students identified the positive aspects of Daslima's existence:

Nina: ...they didn't make it all seem really bad...like she seemed quite happy some of the time when she was talking with her friends and that, like some videos might just show all the negative sides of living where she was, but it showed both sides of it and it was probably quite typical of what it really is like...(second interview).

Mae: ...when she went to work there [the big house]...as a maid...when they went to the door where her mother asked for work...the girls...exchanged little smiles...and they seemed about the same age group and I thought that if she was going to work there they might have made good friends (second interview).

Nichola: ...I think if she'd had a father she wouldn't have had as much say as in not having to marry the uncle's friend and...it was as if women do want to take control over there but they're just not quite ready, not quite sure of themselves. I think that was quite unusual. I thought they would be really conservative. And the way she sort of said well the rest of the family can do this or this, that's Daslima, and the mother agreed. If she'd had a father I don't think he would've agreed, I think she would have ended up getting married (second interview).

Nina and Mae have identified the importance and positive nature of female friendship; Nichola speaks of women taking control, of Daslima making decisions that are supported by her mother, and of how women are 'better off' without men. These three female students have watched a video that has reinforced the importance of female friendship and of young women making decisions that are supported by other women; this has as much relevance to women's existence here in Aotearoa/New Zealand, as it does to Daslima's in Bangladesh. These three female students have noticed the agency of a young woman of their age.

In summary, the female students' words convey their real interest in the experiences of another young woman of their age. Amy and Zoe perceived and described the negative aspects of Daslima's existence, while Nina, Mae and Nichola perceived and described the positive aspects of her existence. More careful design of such lessons and the facilitation of dialogue between these students would increase the potential to process both the negative and positive elements which are part of every women's existence, so that female students do not *only* receive the representations of women as disempowered. Female students' experiences of women-focused curriculum should be empowering.

(2) My vision for a gender-inclusive geography curriculum

Curriculum transformation is the ultimate strategy - "for feminism is a transformative discourse which renders the whole of the [geography] discipline subject to profound change, affecting what is taught, by whom, in

what way and for what political end" (Johnson, 1990); however, this will take time to achieve (Alton-Lee and Densem, 1992; Schuster and Van Dyne, 1984). The constraints of a national curriculum and examination system mean that any initiatives to transform the secondary geography curriculum on a scale other than the national scale may disadvantage students who ultimately take part in the national examination system. These national constraints do not exist for the tertiary geography curriculum and this points to the inability of the literature on tertiary geography to signal future directions for secondary geography in the area of curriculum transformation.

In arguing for the inclusion of women-focused content in the current secondary geography curriculum, I acknowledge Johnson's (1990) warning that such integration is dangerous because it involves constructing the political goal as equality with men, the substitution of gender for a feminist agenda, and tokenism. However, there is no easy short-cut to a transformed curriculum; Schuster and Van Dyne (1984:427) argue that:

it would be an intellectual mistake of monumental proportions to believe that we can do without or bypass women-focused study in the name of the 'greater good' of the transformed...curriculum. The vital work of studying women on their own terms, generates the transformative questions that stimulate the change process, as well as provides the data and alternative paradigms that inform the whole continuum of curriculum transformation...

Monk and Williamson-Fien (1986:193) make similar arguments and describe what has to be done within the specific context of transforming the geography curriculum:

Awareness of the need to develop more sophisticated analyses of women in geography should not deflect us from the belief that locating women, discovering how they feel about their environment and what they are doing in it, is an important first step. However, our second step must be to evaluate critically the data and educational materials that we use, in order to assess what is both explicitly stated and implicitly inferred about the role of women in contemporary societies...

In summary, the two women-focused lessons served three functions. Firstly, they created a curriculum experience for female students in both 5L and 7H, that the female students said they found interesting and important. For some female students, this inspired them to take up more public verbal space; some female students said that they had participated more, and female students as a group took up a greater 'share' of the classroom's public verbal space during the two women-focused lessons (compared with their 'share' during the other observed lessons). Increased public participation by female students meant that their experiences and opinions were 'heard' in the enacted curriculum. Secondly, the two women-focused lessons represent a

small contribution to the transformation process described in detail by Monk and Williamson-Fien (1986), and Schuster and Van Dyne (1984). Thirdly, women-focused content has the potential to contribute to female students' sense of agency in their worlds and ultimately to their well-being.

It is appropriate to conclude this section on creating spaces in the secondary geography curriculum with Monk's and Williamson-Fien's (1986:186) analogy. It is an eloquent summary of my vision of a gender-inclusive geography curriculum:

One of the most intriguing experiences in geographical education is learning to interpret landscapes with a stereoscope and two aerial photographs taken from different perspectives. We see the flat landscape transformed to one with a new dimension of depth, a much more revealing image than that offered by the two separate photographs. Likewise, contemporary research on women offers us the opportunity to create an exciting new vision in a curriculum that for too long has presented a view substantially confined to masculine activities seen through masculine eyes. Adding the perspective of women not only adds a second view. *It changes the way we see the whole.* (my emphasis)

IV. INTERVIEWING AS AN INTERVENTION

Listening to the female students during the one-to-one interviews was the highlight of the research process for me. The journal entries after the first two interviews, which were with Nichola and Nina, acknowledge the positive aspects of interviewing these two students; these comments were applicable to the other female students:

Nichola seemed relaxed and spoke clearly and freely. She seemed to have a good awareness of classroom dynamics and acknowledged how she enjoyed being an observer with the 'wall behind her'. Nichola came across as a confident talker in this setting. I enjoyed listening to her (K.M. Nairn, 27th May, 1993).

Nina was very confident in this setting, very clear in her speaking and thinking...Nina seemed pleased that individual students' perspectives were being listened to, valued, and seemed to like the chance of a one-to-one interview to talk (K.M. Nairn, 28th May, 1993).

The method of interviewing the female students on a one-to-one basis created a relatively private space in which each student could talk about talking. The method itself was a potential intervention, a potential strategy for change. Some of the female students' perspectives of the interview process will be considered in the next section, and this will be followed by the teacher's - Ms Lapresle's - perspective .

(1) The female students' perspectives

The possibilities of the interview as an intervention were most evident in Nichola's response to my question "what has it been like being interviewed?":

Nichola:...where I said I like my back against the wall, I did know that but when you start talking about it, you realise why and then you sort of, if you have a better understanding of why you do things then you can sort of, I don't know, you have a better understanding of yourself...with the class discussion bit it makes you aware of the fact that I do wish I would take part more and so then you try to take part more if you've got something that you think is right, you say...

Interviewer: I've really enjoyed listening to you talking...you have come across as a very confident, articulate speaker in this one to one situation.

Nichola: Yeah, but probably not in class which, like when you are talking about it, it is easy one to one but in front of more people it's different, it's hard.

Interviewer: ...what sort of difference does it make, the fact that I am from outside the school...?

Nichola: You don't see you, you are not the teacher so that what you say the teacher doesn't sort of hear what you say and put a label on you. And the fact that you use your first name as Karen...instead of Miss or Mrs, it makes it more one to one, more on the same level, yeah, it's a good idea (5L, second interview).

Nichola, has identified the interview as an intervention because the interview process facilitated her awareness of how she wishes she did take part more so she tries to take part more - "if you've got something that you think is right, you say". In Nichola's case, the interview worked in a similar way to the women-focused strategy - it encouraged her to take part more in class discussion. Nichola has very good communication skills in the relatively private space of a one-to-one interview but finds talking in public space difficult - "in front of more people it's different, it's hard". This suggests that the intervention process must be careful and gradual. Nichola is an excellent communicator in more private spheres, this must be recognised and valued in itself. The intervention process should take account of the verbal skills 'quiet' female students already have and build on these in a graduated way; for example, the teacher interacting with these students on a one-to-one basis within the classroom, the teacher giving these students prior warning and/or preparation time then calling on them to give an answer. The importance of guaranteeing space in the initial occasions of talking in public, means that 'quiet' female students gain the confidence to risk further occasions of speaking in public.

Nichola enjoyed the experience of being interviewed, of being listened to - "...it's quite fun because I have never done anything like this before, it's sort of interesting." The real proof that Nichola found the interview

experience positive, even empowering, is Nichola's interest in future work, which could be interpreted as an offer to be involved again:

Your research was so professional and your manner so friendly I was delighted to take part in it, and would also be interested in future work you do...Thank you for the card and I look forward to hearing from you again (Nichola, from a Christmas card that she sent in response to a 'thank you' card I had sent, received in December, 1993).

Lisa also spoke of the experience of being interviewed in positive terms:

Lisa: ...I think it is quite good, I think it tended to make you think well yes I thought that, you know... you don't take too much notice about what you are doing but when you actually say it you think oh well that is right, I think like that. Yeah. I thought it gives you an insight into [it]... (7H, first interview).

Lisa's description of her experience of being interviewed suggests that the process validated what she already knew. Lisa's and Nichola's words also provide evidence of one of the functions of talking; the interviews have provided opportunities for Lisa and Nichola to 'think aloud', to formulate their own explanations and interpretations, and to evaluate their own knowledge (Jones, 1985).

Lisa and Nichola are sure about what they know and say - "when you actually say it you think oh well that is right, I think like that"(Lisa) and "where I said I like my back against the wall, I did know that but when you start talking about it, you realise why" (Nichola) - this contrasts with Nina who sounds unsure:

Nina: It is like some things that, like I say...it sort of seems like, oh that's really boring or it doesn't make sense or something, but to you it might because you know what you are looking for...in questions and that.

Nina's words suggest that she does not trust her words to be interesting and to make sense; however, within the context of an interview about talking, this could be different. Nina is tentative about the experience of talking to someone who is interested in understanding what she has to say - "but to you it might [make sense] because you know what you are looking for." Despite her apparent tentativeness, Nina spoke positively about being interviewed:

Nina: I think it is good...with some people you'd probably not feel as comfortable...you make people feel comfortable...to say it...whereas some people may not...(second interview).

These three female students have talked about the interview process in terms that suggest its potential as an intervention and in terms that have

made it clear that it was a positive experience. The remaining six female students - five from 5L and one from 7H - all described the process of being interviewed in terms that were positive, in the case of Mae, or in terms that were more vague. I will quote briefly from the other six female students' responses to my question "what has it been like being interviewed?" as a way of presenting their perspectives of the interview process:

Mae: ...I sort of knew some of the questions you asked, I probably had more time to think about them after I had read the sheet [referring to her copy of the transcribed 'first interview'] than I did last time...it was similar

Interviewer: are there any suggestions...that I could take into account when I interview students again in the future?

Mae: I can't think of anything that you did that wasn't you know good...I felt comfortable talking about it...(5L, second interview).

Zoe: Well the first time you don't really know what to say, and the second time and the third time were much more easier because I know you now so it is much more easier to do it... (5L, second interview).

Amy: It's alright, it doesn't bother me, nothing much bothers me (5L, second interview).

Jessica: Oh it's alright (5L, second interview).

Davinia: It's alright, it's a bit different than the first time, the first one was maybe more questions that were a bit hard to explain...you knew what the answer was but you can't really explain it in words sometimes...but basically the same sort of ideas and the same sort of areas and things (5L, second interview).

Helen: Ahh, It's alright. Yeah (7H, first interview).

None of the female students described the process of being interviewed in negative terms. Two other female students besides Nichola, want to continue their involvement; Lisa rang to say that she would be interested in taking part in further research and Davinia wrote:

I'm glad I could of been some help for your research project. I found it very interesting how you went about the interviews and the sort of questions you asked, for your research...I look forward to your written report in 1994, that would be great...(from a Christmas card that Davinia sent in response to a 'thank you' card I had sent, received in December, 1993).

(2) Ms Lapresle's perspective

Ms Lapresle also identified the interview process as an intervention that had positive outcomes for some of the quiet female and male students, which in turn had advantages from the teacher's perspective:

Ms Lapresle: ...it has made the students more aware of themselves and in a way I think it has probably encouraged them not to be silent so it made my job a little easier if you like...they are perhaps less reluctant to answer now...

Ms Lapresle noticed that three of the quiet female students and one of the quiet male students who were interviewed, seemed more relaxed about taking part in the public verbal space. She suggested that it could be to do with the interview process but also pointed out that "those kids know me better now plus they know the other students...better...so feel more comfortable."

Ms Lapresle also perceived the interviewing process in positive terms for herself; the research had

...been valuable from a personal point of view too in that I have developed a relationship with another female geographer that I didn't have before that, so I consider that probably to be the most important aspect of it for me personally.

There are seldom tangible 'rewards' for the subjects of research so the development of a friendship takes on significance within this context.

It is crucial that I acknowledge that our friendship which facilitated the success of the research process, has also facilitated the exposure of one female geography teacher to not only my analysis of her words and actions, but to the analysis of others who read the thesis. The one female geography teacher involved in the research, was therefore subject to more detailed scrutiny of her teaching practices and of her perspectives than her male counterparts were. Stacey (1988:22-4) is writing about the ethnographic approach to research but her comments are pertinent to my feminist approach to this particular research, and to the research relationships that evolved between myself and 'Ms Lapresle' as well as between myself and each of the female students who were interviewed:

the appearance of greater respect for and equality with research subjects in the [feminist] approach masks a deeper, more dangerous form of exploitation...fieldwork represents an intrusion and intervention into a system of relationships that the researcher is far freer than the researched to leave...the research product [this thesis] is ultimately...[mine - the researcher's], however modified or influenced by informants...[my writing] is not cultural reportage, but cultural construction, and is...a construction of self as well as the other.

In spite of these inherent contradictions, this research 'project' initiated a friendship between two female geographers that was important to both of us.

Creating curriculum experiences and spaces to talk, *for* female students and female teachers are important political goals. However, it is clear that the evaluative climate is a powerful mediating influence; the challenge is to find strategies to make safe spaces for female students within the evaluative

climate of a classroom (and of a thesis). The pedagogy of a lesson has a role in creating safe spaces for talking in public.

V. TURN-TAKING AS AN INTERVENTION

There were two strategies that were utilised in the pedagogies of the respective women-focused lessons: (1) providing an activity which enabled each student to bring their prior knowledge to the lesson and (2) turn-taking. The first strategy was achieved by providing activities such as a brainstorm about why the students thought Samoan women migrate to Aotearoa/New Zealand (7H's women-focused lesson) and a timetable activity which required students to write their own 'typical' timetable alongside a 'typical' timetable for Daslima (5L's women-focused lesson). Starting with the student's own ideas and experiences is an important pedagogical principle (Alton-Lee and Densem, 1992).

The second strategy - turn-taking - was incorporated into the pedagogy of the women-focused lesson taught to 5L. Turn-taking is a strategy in itself, for encouraging the public participation of all students in a class. This minimises the relative risks of public participation for each individual student because everyone is participating within a similar set of evaluative conditions. The following steps were adopted to minimise the risks of public participation. Firstly, everyone had the opportunity to think of and discuss with their neighbours, what they thought the main message of the video was; in other words there was preparation time. Secondly, everyone had the opportunity to present their point of view without interruption or response from other students, on a topic for which there was no right or wrong answer. Thirdly, it was possible to decline; one male student decided not to take his turn in this lesson.

Turn-taking - is intended to create a 'minimal risk' space for each student to talk. The issue that will be explored here is how such a strategy is experienced by female students who seldom take part in the public verbal space; did it feel like pressure to participate or was it empowering?

The female students' perspectives

Six female students from 5L, were asked for their opinions of the turn-taking strategy during the second round of interviews. I asked these female

students the following question "what did you think of the turn-taking method?", their responses follow:

Nichola: It was quite good. It...let everyone have their say and no one was right or wrong and everyone had to say something...

Interviewer: Do you think the fact that you wrote the ideas out first and then talked a little bit about it with your neighbour was an important step beforehand?

Nichola: Yeah, because if you...sort of talk about it and say "oh what did you think" then...the people you're sitting with...come up with about maybe three different ideas so then everyone can sort of say something that is slightly different and you haven't got cloning of what the last person said. Which gets a bit boring. So yeah discussing it beforehand is really good.

Amy: I thought it was good. Because...even though a lot of people thought the same thing, it was still...interesting to hear how many people thought the same thing as you, or thought the same idea but...different aspects of it.

Interviewer: and how did you feel about being called on to do that?

Amy: It was okay because everybody else was doing it as well. So I didn't really, I couldn't get out of it.

Jessica: Oh that was alright

Interviewer: ...can you say a bit more?

Jessica: It was quite good because I had something to say for once. Yeah it was quite good, what I said.

Interviewer: so did it feel good saying something?

Jessica: Yeah because I hardly ever do.

Davinia: I think it was quite good because, I mean we have never really done it before...everybody had to work out a different idea which I thought was good because you couldn't copy somebody...maybe it makes you think a bit more, having to have a different idea for every person...yeah I thought it was really good

Mae: Yeah I thought that was good...because everybody got a chance to have their say and because everybody had to say it they were all sort of equal and nobody could... disagree with their answer because they could just say their own thing as well so it was just what you thought and it was easier because everybody said what they thought

Nina: ...it was quite good I thought, the way that she went around the classroom and got everyone to say something...because that way people get used to saying it and they are not really as worried about it and also if you are asking everyone to do it, you don't think oh I'm going to be the only one, if you are not used to calling out or something

These female students seldom participated publicly in the public verbal space of their geography classroom, yet all of them were positive about being 'put on the spot' to speak during the turn-taking segment of this particular lesson. The words of all six female students indicate that their experiences of the turn-taking strategy were positive; Jessica provides the most succinct summary of what turn-taking meant for her: "it was quite good because I had something to say for once. Yeah it was quite good, what I said".

The content of a lesson and how it is taught are interrelated. It is not enough to introduce women-focused content and expect female students to

automatically begin participating in public. The structure that facilitates public participation must be changed to provide 'minimal risk' opportunities for quiet female students to take up and gain confidence with; turn-taking provides one such structure.

VI. MALE STUDENTS AND SILENCE

I have self-consciously devoted a greater proportion of the written space of this thesis and this chapter to the discussion of female students' perceptions of the women-focused content, the interview process and the turn-taking strategy. However, I do not want to create a silence about the needs of silent and quiet male students or about the vocal male students who need to be silent more/talk less. Therefore, it is pertinent to devote written space to the male students - the ones who need to learn to be silent and the ones who are already silent.

It is relevant to point out that the only student (out of the total of 97 students) who was silent throughout the classroom observations, in other words did not take part in a single public student-teacher interaction during five of the six observations that the student was present for, was a male student in 5N. Interviewing was not carried out in this class so he was not interviewed.

The perspective of one high participating male student from 7H, who said that he wanted to take part less and by implication be silent more, will be discussed next. This will be followed by a discussion of the perspectives of the three quiet male students from 5L who were interviewed.

(1) Hearing from Nick

One female student's response to the question on the questionnaire: "who takes part in class discussion in geography [in 7H]?" was: "Nick, Nick and Nick"; Nick was named by nine other students (out of a total of 18 students in 7H) as a student who takes part in class discussion in this class. The observation data showed that Nick had the second highest rate of public participation in 7H with an average of 8.6 public student-teacher interactions per observed lesson. Nick also 'featured' in the teacher's perspective of who took part in class discussion:

Well, Nick would be one, he is actually quite a quiet fellow but he is one that is quite attentive and asks questions and offers answers...(Mr Hughes).

The three data sources converge to confirm that Nick was one of the male students who dominated the public verbal space of 7H. However, the focus of this section is Nick's responses to the following four questions in the questionnaire:

questionnaire: what do you think of class discussion?

Nick: One sided to a hand full of students, teacher must seek out problem areas in other students by class discussion

questionnaire: describe in your own words how much *you* take part in class discussion in geography.

Nick: All the time.

questionnaire: would you want to change how much you take part in class discussion in geography, in any way?

Nick: Yes, less

questionnaire: what could be changed about geography to encourage you to take part in class discussion?

Nick: Teacher not limiting me by asking me, to let someone else answer (He [the teacher] should do that more often).

I was not able to interview Nick and explore his answers in detail because he was ill at the time. However, there is enough to deduce that Nick has an accurate perception of his high rate of participation in class discussion, that he would like to take part less so that others can take part more, and that he considers it to be the teacher's responsibility to manage this rather than his own responsibility.

It is positive that a male student who is a frequent participant in the public verbal space, is interested in modifying his verbal behaviour, so that other students can take part more. I have already argued in the theoretical chapter that the modification of verbal patterns is applicable to male students who talk alot, as well as to female students who are quiet. It will be easier if male students voluntarily modify their behaviour. It is interesting to note that Nick externalises the responsibility for changing his verbal behaviour and places it in the teacher's hands, even blames the teacher for "not limiting me". There appears to be no internal mode operating to regulate his participation in public verbal space, as has so clearly been demonstrated in the words of Amy, Zoe and Davinia, in Chapter VI.

The challenge is how to *encourage* vocal male students to be silent more often, effectively and appropriately. It can sometimes be more difficult to limit the public participation of male students like Nick who participate according to the 'rules'; he did not call out, was not *named concerning behaviour* (unlike his three other high participating male counterparts), and

was described as "quite a quiet fellow" by his teacher. However, Nick himself has suggested that the teacher could limit him by "let[ting] someone else answer" and indirectly has proposed a strategy for 'creating his own silence'.

The first steps towards creating male silence should involve male students' own perspectives of their public participation patterns (as well as observation data to challenge any underestimation that may occur) because they may offer their own solution as in the case of Nick. This sounds optimistic and it is. Nevertheless, information gathering is important in all classrooms where individual male students' dominate the public verbal space, irrespective of whether they volunteer their own solutions or not. Information on individual male and female students' public participation patterns provides the basis on which teachers can make decisions about which strategies to adopt for which students; whether to encourage particular students to be silent more and other students to talk more.

(2) Hearing from the quiet male students

Hearing from the quiet male students was more difficult to achieve, in comparison to hearing from the quiet female students. For example, one quiet male student in 5L declined the invitation to be interviewed, another quiet male student in 5L did not take the questionnaires asking for his perspectives seriously and threw one of his 'completed' questionnaires in the rubbish bin.

The three male students from 5L who were interviewed - Terry, John M. and Jim - appeared to be less relaxed and more reserved during the interviews in comparison with the female students. This could be explained by the fact that I was a female interviewer and they may have felt more 'comfortable' with a male interviewer. The following two journal entries were written after the first interviews with the male students:

The interviews with the boys have been much shorter than the interviews with the girls (K.M. Nairn, 4th June, 1993).

A straightforward interview on one level ie. answered the questions with 'no problems' but no elaboration/depth and when I prompted with 'anything else?', he would say 'no' (K.M. Nairn, 8th June, 1993).

The second entry referred to one of the three male students but was applicable to all three male students. These short interviews with "no elaboration/depth" meant that I did not find out as much about quiet males' experiences of public verbal space, as I did about quiet females' experiences.

The discussion of the three quiet males' perspectives will follow the format adopted earlier in this chapter in the discussion of the quiet females' perspectives. The quiet male students' perspectives of the women-focused lesson, of the interview process, and of the turn-taking strategy will be discussed in that order. How did these male students experience the three 'interventions'?

(a) The women-focused content - quiet male students' perspectives

The three male students (who were interviewed from 5L) said the following in response to my question: "what did you think of the video about Daslima?"

Terry: Oh it was interesting, like it showed how the people live in third world countries, how different it is from New Zealand, and show how well off we are in New Zealand even though [everyone] seems to be complaining about it at the moment

Interviewer: what did you think of the activities that followed the video?

Terry: activities just so we understood how big the differences were between the two cultures, writing lists of what was expected of children in New Zealand and children in Bangladesh, what kind of work they do (second interview).

Jim: Well I thought it was a lot different to how people act over here.

Interviewer: in what way?

Jim: Well it was sort of like children had to fend for themselves and they really didn't have much rights and you know girls could be sold off by their parents, practically, and just for money...the parents would want them to get married so they get all the money from the husband (second interview).

John M: I don't know, just kind of feel sorry for the girls like what they have to put up with...they don't really get a choice on who they want to marry and that sort of thing and they have to go out and work and stuff (second interview).

Terry found the women-focused lesson interesting, yet it would be impossible to deduce from his comments that it was women-focused. The instructions for the activity he has described, concerned the expectations of *girls* in Aotearoa/New Zealand and *girls* in Bangladesh, not *children*. Terry has reverted to gender-unspecified language in his perspectives of the lesson; this process has already been discussed elsewhere in the thesis. Jim and John M. both consider the experiences of Daslima within a negative framework - Jim pointed out that "girls could be sold off by their parents" and John M. felt "sorry for the girls like what they have to put up with" which suggests a 'patronising' concern. There was no recognition of the positive elements of Daslima's existence.

The negative frame of reference that Jim and John M. have constructed around Daslima's existence is not likely to affect their sense of themselves. However, if these two (and other) male students equate women's existence

with negativity, this may influence their perceptions of and interactions with girls and women in general. If male students perceive girls and women as powerless and feel sorry for them, this contributes to and becomes part of the evaluative climate and the lived peer culture of the classroom. If other male students do not expect female students to be powerful generally or to be powerful specifically in the public verbal space of the classroom, and if male students feel sorry for what girls have to "put up with", these messages and the associated body language of male students, feed a patronising evaluative climate that may be experienced as debilitating by some female students. In other words, male student's expectations of female powerlessness may become 'self-fulfilling prophecies' and it may affect the quality of the interrelationships between female and male students. However, these potential negative effects must be weighed up against the identified positive effects of the women-focused content for female students, that have already been discussed earlier in the chapter.

(b) The interview process - quiet male students' perspectives

The three male students' responses to my question "what has it been like being interviewed" were:

Jim: ...it's funny trying to see what I saw last time, sort of thinking a bit differently compared to my last interview, some of my thoughts have changed a wee bit

Interviewer: ...what thoughts have changed?

Jim: Well that bit about groups but not really (second interview).

John M: Oh it is easier than the first time because you know what to expect.

Interviewer: ...Do you think I could have explained things better before the interviews started or anything like that?

John M: No it doesn't really matter.

Interviewer: Any other comments about how I could improve on the interviews in future?

John M: No they seemed alright (second interview).

Terry: Well not as nervous or anything like that, more used to answering questions

Interviewer: any suggestions for how I could improve the interviews?

Terry: No (second interview).

Jim's words suggest that the interview process did encourage him to evaluate the ideas/knowledge (Jones, 1985) that he had presented in the first interview. Both John M. and Terry felt more comfortable during their second interviews - "it is easier...because you know what to expect" and "well not as nervous or anything like that". Their words convey some tentativeness about the interview experience. If the interview had been experienced negatively, John M. and Terry could have made suggestions for improvements, although I recognise that the power differentials between myself and the individual

male students may have circumvented the ease with which they could suggest improvements.

(c) The turn-taking method - quiet male students' perspectives

The next three quotes present the three male students' opinions of the turn-taking strategy:

Jim: yeah that was quite good I thought because everybody was trying to think of something that someone else hadn't said beforehand so we had a lot of different ideas.

Interviewer: anything else about the turntaking method?

Jim: ...I think it was quite good all the sort of normal ideas have been filtered out and we got some quite interesting ones by the end of it

Interviewer: so what would you have considered to be some of the normal ideas that were filtered out?

Jim: Well just basically things like what I put down, children, people are poor and children have to work and things like that, just variations on that theme...some people had really different opinions, I can't remember...I think it was [names one male student] said something that was quite funny, and Ms Lapresle said that's really a different approach but I can't remember what he said (second interview).

Terry: Yeah, I think that is probably a good idea because it makes people participate in it, it makes people form opinions about it, they have to actually say what [their opinions] are (second interview).

John M: Oh I didn't really like it, I mean everybody said the same thing, over and over

Interviewer: ...what is your memory of what they said?

John M: ...Oh it might have been what it was like for girls in Bangladesh, I'm not sure

Interviewer: how did you feel about the fact that you had to take a turn?

John M: Oh it didn't worry me

Interviewer: what method of discussion would you prefer when it comes to class discussion?

John M: Just what we are doing...you say something if you want to

Interviewer: do you like discussions where the whole class takes part or do you like discussions where there's a small group and you report back to the whole class?

John M: No the whole class...if it is a small group you've got to be involved

Interviewer: right, and if it is a large class?

John M: You don't normally have to do anything

Interviewer: so why do you like that situation?

John M: Probably I don't really like geography that much

Interviewer: so you don't like geography that much and does that affect how much you want to get involved?

John M: Yeah, probably

Interviewer: so if you like the subject, would you want to get involved in class discussion more?

John M: Yeah if I found it interesting (second interview).

Both Jim and Terry were positive about the turn-taking method; however, they did not speak about their own experiences of the strategy. Jim framed his positive comments about the strategy in terms of enjoyment of other students' ideas, and Terry in terms of what the strategy meant for "people" in general. John M. was the only one of the three male students who

talked in terms of his own experience of the strategy - "I didn't really like it" but reassured me that being put on 'the spot' was not a negative experience - "it didn't worry me". John M. was clear about his preference for the status quo where he could remain silent/uninvolved, and explained his silence - "I don't really like geography that much."

John M.'s point of view reinforces the rationale of the thesis, if female and male students find geography interesting (and therefore relevant), they are more likely to want to be involved in the associated class discussions. John M. says that he is not interested in geography even though it is concerned predominantly with male activities; this challenges the assumption that all male students will automatically be interested in male-focused content just as it challenges the assumption that all female students will automatically be interested in women-focused content. However, male hegemony makes it possible for male students to enjoy male knowledge, whereas it often renders female students' enjoyment of female knowledge problematic.

The exploration of male students' silence has occurred in a relatively smaller written space for three reasons. Firstly, there were twice as many female students interviewed as male students. Secondly, the three male students said much less about themselves/were relatively silent on the subject of their own silence and therefore I remain less 'knowledgeable' about male silence; this in turn contributes to the relative silence of this thesis on the subject. Thirdly, male silence is seldom considered in the existing research; therefore this research was carried out in a 'silent space.' Male silence in all classrooms requires more careful exploration in future research; this research may be more effectively carried by men?

VII. THE FUTURE ?

In summary, this chapter has explored quiet female and male students' evaluations of the women-focused content, the interview process and the turn-taking strategy. The need for vocal male students to be silent more often has been identified, so that there is more public verbal space available for quiet female and male students to take up if they choose to.

Therefore, the management task for teachers is two-fold. Firstly, it is about *ensuring* that some students take part less so that there are opportunities available for quiet students to take up if they choose. Secondly,

it is about *encouraging* the quiet students, particularly quiet female students, to take part more in a geography curriculum that is revised to reflect their interests and relate to their experiences.

The National Social Sciences Curriculum is currently under review, therefore the opportunity to revise the curriculum to provide content that is interesting and relevant for female students exists. The revision process must be done fairly so that there are similar proportions of women-focused and men-focused content. It is crucial that female students' evaluations of proposed curriculum goals and content are an integral part of the review process; their perspectives deserve primacy in defining what is interesting and relevant for female students in Aotearoa/New Zealand at this point in history, and "because knowledge is historical we will need to revise the curriculum again and again" (Schuster and Van Dyne, 1984).

CHAPTER IX

CONCLUSIONS

This chapter will highlight the key findings from each of the five substantive chapters and provide a forum in which one of the female students has the final say. The research and the chapters are similar to the process of peeling away layers, to get at new understandings and meanings. This process is mirrored in the writing of this last chapter; the first layer is considered in terms of its self-evident appearance and then in terms of what is not apparent. This search for more understanding of what was invisible and who was silenced in the initial layer leads to the next layer, and so on.

I. PEELING BACK THE LAYERS

Each substantive chapter is related yet distinctive, therefore, the conclusions from each chapter are treated separately, then drawn together to present a broader picture.

(1) The public verbal space of four geography classrooms (Chapter IV)

The results from the *investigation* phase showed that the public verbal spaces of all four classrooms was male-dominated. However, this general statement hides two dimensions of male-domination in the public arena of the classroom. Firstly, the public verbal space of each classroom was dominated by two, three or four individual male students and these males took part in a disproportionate number of student-teacher interactions compared with the most vocal female students in these classes. Secondly, there were silent and quiet male students in all four classes who did not contribute to the process of domination.

A greater proportion of female students across the four geography classes were silent or quiet during one or more observed lessons; the student who took part in the smallest number of public student-teacher interactions was a female student in three of the four classes. Female silence was more evident in the two seventh form classes, which suggests that female students tend to become more silent as they move up through the secondary school system.

Triangulation of the three data sources supported *and* challenged these generalisations. Contradictory evidence from one or more of the data sources provided the catalysts for the following insights. Some male students take up a large amount of teacher attention and go unnoticed, while female students who demand teacher attention get noticed and commented on. The underestimation of male demands and the overestimation of female demands are the two sides of the 'male hegemony' coin. It means that male students get away with *more* and female students get away with *less*, than their fair shares of public verbal and physical space.

This chapter set the scene for the in-depth exploration of the public and private dimensions of verbal and physical space in 5L's classroom. A number of attributes of 5L are important for an understanding of what follows. More than half of the total number of female students in this class were silent or quiet, compared with a third of the male students. The public verbal space of this classroom was dominated by four male students in particular, yet the demands on teacher attention and time by two of these four students went unnoticed by the teacher and other students. Quiet female and male students from this class were interviewed on a one-to-one basis.

(2) Paradoxical space (Chapter V)

The concept of paradoxical space was used to understand how some female students appeared to experience classroom space simultaneously as 'insiders' *and* 'outsiders.' Female students talked with their friends in localised private spaces where they sat and were physically located inside the geography classroom, these two components contributed to their sense of being insiders. However, at the same time, these female students were outside the public verbal space of 5L - they were the listeners, *and* they were located on the periphery of the classroom's physical space - they were spectators of a central area dominated by the performance of two or three male students.

The experience of being outsiders is intensified for female students who are already self-conscious about potential evaluation of their physical appearance and intellectual abilities, by the evaluative climate of the classroom. Some of the female students articulated a sense of being 'outside' their bodies - watching themselves being watched and evaluated. This process locates female students in the classroom space, a space that is not their own

(Rose, 1993). One female student evaluated herself - "you...immediately got the label of brain box, or nerdy, boring person" - as she perceived others would; the evaluative climate was internalised to become this student's own evaluative process (Alton-Lee and Nuthall with Patrick, 1993).

Therefore, the evaluative climate took two forms - external and internal modes of judgement. External evaluation included the laughter of male students, the threat of rumours being passed on to other students outside 5L, and labels about academic ability and appearances. The internal forms of evaluation were to do with female students blaming themselves, internalising failures for things beyond their control. Evaluations were experienced bodily and spatially - "[you feel] really stupid and very small, and you just like to shrink really..."(Zoe, second interview). For girls and women:

[b]eing in space is not easy. Indeed at its worst this feeling results in a desire to make ourselves absent from space; it can mean that 'we acquiesce in being made invisible, in our occupying no space. We participate in our own erasure' (Rose, 1993:143).

Two female students said that they would not feel safe or comfortable in particular seating arrangements. Their use of the word 'safe' indicates how intensely the evaluative dimensions of classroom spaces, are experienced by some female students. Seating arrangements and positions where they could see everyone else in the classroom - in a circle and at the back of the classroom - were considered to be safe, more comfortable. Comfortable spaces were also the shared private spaces at the groups of desks where female students sat - "I don't think it makes any difference *where* you are sitting...it makes a difference *who* you are sitting with" (Nina, first interview, my emphasis).

(3) Access to the teacher (Chapter VI)

The interview process facilitated a glimpse of the private space of female students' 'self-talk,' and how these self-perceptions influenced three female students' access to their teacher. One female student was concerned that asking her teacher a question would be "putting her out *and there are other people that want things answered...*" (Amy, second interview, my emphasis). This female student who took part in the fewest public student-teacher interactions (during the observed lessons) in 5L was concerned about putting the teacher out and about other students' needs. The socialisation of females to take account of others' needs ahead of their own has implications for their well-being and learning. Female students' reticence to get teacher

help means that they do not have access to one means of assistance in dealing with new geographical knowledge.

One female student described how her access to the teacher was limited by other male and female students who pushed ahead of her in line at the teacher's desk. She resolved the issue by not initiating access to the teacher again; on the surface this is a self-protective strategy, but has the ultimate effect of penalising the student and no-one else. If female students feel inhibited to move about the classroom and to approach their teachers, this has implications for their well-being and learning,

In contrast, another female student said that she would ask the teacher for help in the first instance - she appeared to be confident about initiating access to the teacher. This student saw herself as an "open" mature talker in class discussion. These positive self-perceptions may have also contributed to the over-estimation of her participation. Male hegemony achieves a double foil; female students who are relatively silent yet perceive themselves as talkers in class discussion, might not look for opportunities to talk more. Nevertheless, positive self-perceptions are likely to be conducive to increasing these female students' share of public verbal space.

All three female students' self-perceptions had the potential to block them initiating access to the teacher as one of the learning resources in the classroom. However, the solution does not lie in changing self-perceptions that have evolved in a society where females are expected to put others before themselves, but in changing the curriculum and the pedagogy to value the interests and needs of female students.

(4) The women-focused lesson (Chapter VII)

This research was based on the model of socially critical action research; the women-focused curriculum intervention was designed as one strategy to challenge the male-dominated secondary geography curriculum and male-dominated public verbal spaces.

Half of all the female students in both 5L and 7H, said that they had participated more than usual, and considered the content to be *very* important. This group included quiet female students who said that they had participated more. Almost half of all the male students said that they had taken part less, and considered the content to have little or no importance.

This group included males who were usually frequent participants but said that they had participated less during the women-focused lesson.

The observation data was consistent with the students' perceptions. Female students' took up a larger 'share' of public verbal space during the women-focused lessons when compared with their 'share' during the previous observed lessons. *But* male students continued to dominate the public verbal space of these lessons. This was consistent with the teachers' perspectives that it was 'business as usual.' One part of the explanation for their continued dominance relates to males who were named frequently concerning behaviour. Some male students continued their monopoly of teacher attention, even if it was negative attention. Spender (1982:57) found a similar pattern of "a group of boys who will engage in uncooperative and disruptive behaviour if they do not get material that they find interesting".

The richest source of data was individual students' perspectives of the lessons. Female students said that they had participated more in all kinds of ways - watching more, giving more of an answer, being more interested, and wanting to know more. These individual student's *evaluations* were the most pertinent 'measure' of how productive, the women-focused lesson had been for them.

(5) Evaluating the research (Chapter VIII)

The research incorporated two other *interventions* - the interview process and the turn-taking strategy. The women-focused curriculum intervention was designed for female students, the interviews for quiet female and male students, and the turn-taking strategy for all students. The quiet students who were interviewed evaluated all three interventions.

Developing women-focused content to empower female students is complex; content must realistically portray the positive and negative aspects of women's existence, and it must value women's traditional (often unpaid) achievements as much as their non-traditional achievements. Some of the female students of 5L experienced the women-focused lesson in negative terms - they were upset about how women in Bangladesh were treated. Other female students recognised the positive elements of Daslima's existence - her friendships and her mother's support for her decision. The development of curriculum about women to empower young women should include opportunities for dialogue, for debriefing and for evaluation.

All of the quiet female students spoke positively about the experience of being interviewed; this intervention appeared to have the most direct and identifiable benefits of the three strategies. Listening to the communication and analytical skills of these young women and to their experiences of classroom spaces made me realise the richness of female experience that is not heard in geography (and other) classrooms. Creating a private space in which quiet females can talk without evaluation and interruption is prime space, these female students made the most of it and some interviewed me.

The turn-taking strategy created a minimal risk and guaranteed space in which to speak uninterrupted. Quiet female students' evaluations of this strategy were pertinent - these students seldom take part in public verbal space for good self-protective reasons; how would they experience being put on the spot to speak? All of the quiet female students spoke positively of this strategy; the evaluative dimensions of talking in public were 'similar' for everyone - "everybody got a chance to have their say and because everybody had to say it they were all sort of equal..." (Mae, second interview).

Male silence is considered within the framework of two questions: how can educators encourage some male students to be more silent, and silent male students to talk more? One vocal male student said that he wanted to take part less so that others could take part more, and saw it as his teacher's responsibility to manage this, not his own. This student has suggested a solution to limit his 'share' of public verbal space; it is important to discover such voluntary initiatives because they are likely to be the most effective.

This thesis contributes to the 'silence' about male silence despite attempts to provide a space in which quiet male students could talk about their experiences of public verbal space. Future research must be more carefully designed to consider the dynamics of social class and race, together with gender, in order to explore male and female silence in more depth.

II. WHAT WAS UNCOVERED

The quantitative layer of generalised patterns has been peeled away to reveal the rich diversity of individual students' experiences in one geography classroom. I have considered the dimensions of public physical and verbal space in one classroom, as well as the simultaneous operation of public/private spaces, of verbal/silent spaces. Most importantly, I have created a space to value quiet female students' ideas and experiences. This thesis represents the written form of that space. This research is primarily *about* and *for* quiet female students.

The research shows that female students have very good reasons for not participating in the public verbal space of geography classrooms. Silence is one self-protective strategy to manage the risks of evaluation. However, silence was not the answer to the problem, they were aware of being watched and judged even when they did not speak. These female students made conscious decisions to be silent; they were not *naturally* silent.

When they got content that was worth talking and thinking about, female students talked more, watched more and gave more of an answer. Altering the content on *one* occasion inspired some female students to talk more. It is the responsibility of the geography education community to make it worthwhile for female students to take part in our classes - taking part in class is used in the broadest sense to include talking, watching, listening - this means creating curriculum content and participation structures with female students' needs and interests in mind.

Creating spaces for female students in geographical education does not end here with the final dot. It has just begun; my geographical imagination is already thinking beyond this written space to...

III. FEMALE AGENCY

Female students are doing it for themselves. Lisa decided to take up more public verbal space *independently* of this research:

Lisa: Yeah, more so now than I did in the first term, more so because I feel better talking when I am up the front than I do...talking, way at the back (first interview).

Lisa was a powerful agent. She made a conscious decision to move away from where her peer group were sitting and *into* the public physical and verbal space. I chose Lisa's words to end with because they contain the essence of my vision for all female students:

Lisa:...well I said to them if they wanted to stay there that that's okay, but I'm moving up because I can't hear very well... I think if you are at the side or say if you are at the back, if people are talking it is sort of like a block between you and the teacher...the best place I'd go to the middle, for concentration...I think I understand the work a lot better because I am closer to it and I can check with things a lot better like it's not distorted, or like things getting broken, *like it's clear all the way through.*

REFERENCES

- Alton-Lee, A. & Densem, P. (1992). Towards a gender-inclusive school curriculum: changing educational practice. In S. Middleton & A. Jones (Eds.). *Women and Education in Aotearoa Vol. 2*, Wellington: Bridget Williams Books.
- Alton-Lee, A. & Nuthall, G. with Patrick, J. (1993). Reframing classroom research: a lesson from the private world of children. *Harvard Educational Review*, Vol. 63, No. 1, Spring, p 50-84.
- Apple, M. (1991). The culture and commerce of the textbook. In M. W. Apple & L.K. Christian-Smith (Eds.). *The Politics of the Textbook*. New York: Routledge.
- Apple, M. & Weis, L. (1983). Ideology and practice in schooling: a political and conceptual introduction. In M. Apple & L. Weis (Eds.). *Ideology and Practice in Schooling*. Philadelphia: Temple University Press.
- Babad, E. (1990). Calling on students: how a teacher's behaviour can acquire disparate meanings in students' minds. *Journal of Classroom Interaction*, Vol. 25, No. 1 & 2, p 1-4.
- Barnes, D. (1976). *From communication to curriculum*. Middlesex: Penguin.
- Barr, A. (1989). *Dollars in the dirt*. New Zealand: Macmillan.
- Blease, D. (1983). Observer effects on teachers and pupils in classroom research. *Educational Review*, Vol. 35, No. 3, p 213-217.
- Bondi, L. (1993). Gender and geography: crossing boundaries. *Progress in Human Geography*, Vol. 17, No. 2, p 241-46.
- Bordo, S. (1990). Feminism, postmodernism and gender scepticism. In L. Nicholson (Ed.). *Feminism/Postmodernism*. London: Routledge, p 133-156.
- Bowlby, S. (1992). Feminist geography and the changing curriculum. *Geography*, Vol. 77, Part 4, No. 337, Oct, p 349-360.

Brophy, J. & Alleman, J. (1991). Activities as instructional tools: a framework for analysis and evaluation. *Educational Researcher*, Vol. 20, No. 4, p 9-23.

Bunch, C. (1983). Not by degrees: feminist theory and education. In C. Bunch & S. Pollack (Eds.). *Learning Our Way: Essays in Feminist Education*. New York.

Carr, W. & Kemmis, S. (1986). A critical approach to theory and practice. In *Becoming critical: Education, knowledge and action research*. London: Falmer Press.

Chodorow, N. (1978). *The reproduction of mothering*. Los Angeles: University of California Press.

Collay, M. (1989). How does researcher questioning technique influence participant response in qualitative research? Paper presented at the annual meeting of the AERA, San Francisco.

Commonwealth Schools Commission. (1975). *Girls, school and society*. Report by a Study Group to the Schools' Commission.

Dann, C. (1992). Ecofeminism, Women and Nature. In R. Du Plessis (Ed.). *Feminist Voices. Women's Studies Texts for Aotearoa/New Zealand*, Oxford: Oxford University Press.

Doyle, W. (1983). Academic work. *Review of Educational Research* Vol. 53, No. 2, p 159-199.

Denzin, N. (1978). Strategies of multiple triangulation. *The Research Act*. New York: McGraw-Hill.

Duelli Klein, R. (1983). How to do what we want to do: thoughts about feminist methodology. In G. Bowles & R. Duelli Klein (Eds.). *Theories of Women's Studies*. London: Routledge and Kegan Paul.

Gaskell, J. (1985). Course enrolment in the high school: the perspective of working-class females. *Sociology of Education*, Vol. 58, No. 1, p 48-59.

Giroux, H. & McLaren, P. (1992). Writing from the margins: geographies of identity, pedagogy, and power. *Journal of Education*, Vol. 174, No. 1, p 7-30.

- Grima, G. & Smith, A.B. (1993). The participation of boys and girls in Home Economics. *Gender and Education, Vol. 5, No. 3*, p 251-268.
- Haig, B. (1987). Scientific problems and the conduct of research. *Educational Philosophy and Theory (19) 2*. pp 22-32.
- Harrison, L. (1975). Cro-Magnon women - In eclipse. *The Science Teacher, Vol. 42*, p 8-11.
- Henley, N. (1989). Molehill or mountain? What we know and don't know about sex bias in language. In M. Crawford & M. Gentry (Eds.). *Gender and Thought (Psychological Perspectives)*. Springer-Verlag: New York Inc.
- Henley, N. (1977). *Body Politics: power, sex, and nonverbal communication*. New Jersey: Prentice-Hall.
- Holly, M. & Mcloughlin, C. (1989). Professional development and journal writing. In M. Holly & C. Mcloughlin (Eds.). *Perspectives on teacher professional development*. London: Palmer Press.
- Hughes, D. (1973). An experimental investigation of the effects of pupil responding and teacher reacting on pupil achievement. *American Educational Research Journal, Vol. 10, No. 1*, p21-37.
- Jayarathne, T. (1981). The value of quantitative methodology for feminist research. In C. Bowles and R. Duelli-Klein *Theories of Women's Studies II*.
- Johns, A. (1984). *Coalmining women. Victorian lives and campaigns*. New York: Cambridge University Press.
- Johnson, L. (1994). What future for feminist geography? *Gender, Place and Culture, Vol. 1, No. 1*, p 103-113.
- Johnson, L. (1990). New courses for a gendered geography: teaching feminist geography at the University of Waikato. *Journal of the Institute of Australian Geographers, Vol. 28, No. 1*, p 16-28.

Jones, A. (1992). Writing feminist educational research: am 'I' in the text? In S. Middleton & A. Jones (Eds.). *Women and Education in Aotearoa Vol. 2*, Wellington: Bridget Williams Books.

Jones, A. (1991). Is Madonna a feminist folk-hero Is Ruth Richardson a woman?: Postmodern feminism and dilemmas of difference. *Sites, No 23, Spring*, p 84-100.

Jones, A. (1985). Which girls are 'learning to lose'? Gender, class, race in the classroom. *N.Z. Women's Studies Journal, August*. pp 15-27.

Kelly, A. (1988). Gender differences in teacher-pupil interactions: a meta-analytic review. *Research in Education, 39*, pp 1-23.

Kobayashi, A. & Peake, L. (forthcoming). Un-natural discourse 'race' and gender in geography. *Gender, Place and Culture*.

Kofman, E. (1992). What to do with difference? (Report: 'Feminists and Feminism in the Academy', Women and Geography Study Group Meeting), *Antipode, Vol. 24, No. 3*, p 227-230.

Kruse, A. (1992). "...We have learnt not just to sit back, twiddle our thumbs and let them take over." Single-sex settings and the development of a pedagogy for girls and a pedagogy for boys in Danish schools. *Gender and Education, Vol. 4, Vol. 1-2*, p 81-104.

Krupnick, C. (4 June, 1992). Foreign Correspondent Television Programme.

Larner, W. (1993). 'Difference down under': geography and feminism in New Zealand. Paper presented to the Canadian Association of Geographers, Carleton University, Ontario.

Larner, W. (1989). Migration and female labour: Samoan women in Christchurch. Proceedings of a Seminar run by the Social Sciences Research Fund Committee and held on 23 June 1989, at Victoria University of Wellington, p 96-106.

Lather, P. (1991). *Getting Smart. Feminist Research and Pedagogy With/In the Postmodern*. New York: Routledge.

- Lee Smith, M. (1987). Publishing qualitative research. *American Educational Research Journal*, Vol. 24, No. 2, p 173-183.
- Longhurst, R. (forthcoming). Reflections on and a vision for feminist geography. *New Zealand Geographer*, April, 1994.
- Longhurst, R. & Peace, R. (1993). Lecture Theatre to Classroom - Feminist Geography. *New Zealand Journal of Geography*, October Issue, p 16-19.
- Maguire, P. (1987). *Doing Participatory Research: A Feminist Approach*. Massachusetts: University of Massachusetts.
- Mahony, P. (1985). *Schools for the boys? Co-education reassessed*. London: Century Hutchinson.
- Mathison, S. (1988). Why triangulate? *Education Researcher*, 17,(2). pp 13-17.
- McBride, T. (1993). *Understanding Learning and Teaching Project*. Unpublished manuscript.
- McDowell, L. (1993a). Space, place and gender relations: Part I Feminist empiricism and the geography of social relations. *Progress in Human Geography*, Vol. 17, No. 2, p 157-179.
- McDowell, L. (1993b). Space, place and gender relations: Part II Identity, difference, feminist geometries and geographies. *Progress in Human Geography*, Vol. 17, No. 3, p 305-318.
- McDowell, L. (1992a). Engendering change: curriculum transformation in human geography. *Journal of Geography in Higher Education*, Vol. 16, No. 2, p 185-197.
- McDowell, L. (1992b). Doing gender: feminism, feminists and research methods in human geography. *Transactions of the Institute of British Geographers, New Series*, Vol. 17, No. 4, p 399-416.
- McDowell, L. (1988). Coming in from the dark: feminist research in geography. In J. Eyles (Ed.). *Research in Human Geography: Introductions and Investigations*. Basil Blackwell.

McDowell, L. & Bowlby, S. (1983). Teaching feminist geography. *Journal of Geography in Higher Education*, Vol. 7, No. 2, pp 97-105.

Middleton, S. (1989). In S. Middleton & A. Jones (Eds.). *Women and Education in Aotearoa Vol. 1*, Wellington: Bridget Williams Books.

Mohanty, C. (1991). Cartographies of struggle Third world women and the politics of feminism. In C. Mohanty, A. Russo and L. Torres (Eds.). *Third world women and the politics of feminism*. Bloomington: Indiana University Press.

Monk, J. (1983). Integrating women into the geography curriculum. *Journal of Geography*, November-December, pp 271-273.

Monk, J. & Hanson, S. (1982). On not excluding half of the human in human geography. *The Professional Geographer*, 34, pp 11-23.

Monk, J. & Williamson-Fien, J. (1986). Stereoscopic visions: perspectives on gender - challenges for the geography classroom. In J. Fien & R. Gerber (Eds.). *Teaching Geography for a Better World*. Brisbane: Jacaranda.

Nairn, K. (forthcoming). Who participates in class discussion in geography? *Proceedings from the New Zealand Geography Conference, August-September, 1993*, Wellington.

Nairn, K. (1993). What is learnt in geography classrooms ? Exam answers as a reflection of the experienced curriculum.

Nairn, K. (1992). Creating spaces and finding voices: transforming verbal space using women-focused curriculum in geography classrooms. Unpublished manuscript.

Nairn, K. (1991). Geography and gender in the secondary school classroom. *New Zealand Journal of Geography*, April, pp 14-15.

Newton, K. (1988). Teacher: pupil interaction - does it affect equity? *National Education*, August, p 127-129.

- New Internationalist (circa 1986). *A Women's World series: The Price of Marriage and The Struggle for Land*. (Video).
- New Zealand Pocket Oxford Dictionary (1986). Auckland: Oxford University Press.
- Parsons, J. (1977). Geography as exploration and discovery. *Annals of the American Geographers*, Vol. 67, No. 1, p 1-16.
- Peake, L. (1985). Teaching feminist geography: another perspective. *Journal of Geography in Higher Education*, Vol. 9. No. 2, pp 186-190.
- Rose, G. (1993). *Feminism and Geography. The Limits of Geographical Knowledge*. Minneapolis: University of Minnesota Press.
- Sadker, M. & Sadker, D. (1993). Creating a non-sexist classroom. *Instructor*, March, p 45-68.
- Sadker, M. & Sadker, D. (1982). *Sex Equity Handbook for Schools*. New York: Longman.
- Sadker, M., Sadker, D. & Klein, S. (1991). The issue of gender in elementary and secondary education. In G. Grant (Ed.). *Review of Research in Education*, 17, Washington, D.C.: American Educational Research Association, pp 269-334.
- Schuster, M. & Van Dyne, S. (1984). Placing women in the liberal arts: stages of curriculum transformation. *The Harvard Educational Review*, Vol. 54, No. 4, p 413-428.
- Scown, J. & Nissen, W. (1993). *Filling the frame: profiles of 18 New Zealand women*. Auckland: Reed.
- Stokes, E., Dooley, L., Johnson, L., Dixon, J. & Parsons, S. (1987). Feminist perspectives in geography: a collective statement. *New Zealand Geographer*, Vol. 43, p 139-149.
- Spender, D. (1985). *Man Made Language*. London: Routledge and Kegan Paul.

Spender, D. (1982). *Invisible Women. The Schooling Scandal*. London: Writers and Readers.

Spender, D. (1981). *Men's studies modified The impact of feminism on the academic disciplines*. New York: Pergamon Press.

Stacey, J. (1988). Can there be a feminist ethnography? *Women's Studies International Forum*, Vol. 2, No. 1, p21-27.

Sturrock, F. (1993). *The Status of Girls and Women in New Zealand Education and Training*. Wellington: Learning Media, Ministry of Education.

Tripp, D. (1990). Socially critical action research. *Theory into practice*, Vol. 29, No. 3, p 158-166.

Weiler, K. (1988). *Women Teaching for Change. Gender, Class and Power*. London: Bergin and Garvey.

Weiner, G. (1987). Teachers as researchers: working towards equal opportunities in education from the inside. Paper presented at AARE/NZARE Conference, University of Canterbury, New Zealand.

Young, I. (1990). *Throwing like a girl and other essays in feminist philosophy and social theory*. Bloomington: Indiana University Press.

Appendix 1.

Some strategies to try...

***gender-inclusive curriculum**

***group building exercises, especially at the beginning of the year, so the class get to know each other**

***turn-taking in class discussion**

***waiting longer after asking a question of the class, rather than accepting the first hand raised**

***asking a question of a particular area of the classroom where the quieter students sit**

***alternate asking questions of female and male students; if a female student gets an answer wrong ask another female student for the answer**

***making time available for one-to-one attention during or at the end of class, particularly for quieter students**

***changing the position of the teacher's desk**

***changing students' seating positions**

***moving around the room**

***making a point of interacting with each student at least once during the week (or during a lesson)**

***allocate same number of participation cards to every student in class; once students have used them up, no more turns**

***asking each student for a written description of *how much* they think they take part in class discussion and *how they feel* about this level of participation and/or**

***using a diary system to communicate with students on weekly/monthly basis**

Appendix 2.

Interview Questions:

- 1) how would you explain *what geography is* to someone who didn't know?
- 2) what have you been learning in geography? what sorts of things do you do in geography?
- 3) what do you think of geography?
- 4) how did you choose where you sit in this class?
- 5) who takes part in class discussion in geography?
- 6) how do students let the teacher know they want to take part in class discussion?
- 7) who doesn't take part in class discussion in geography?
- 8) what do you think of class discussion?
- 9) a) describe in your own words how much you take part in class discussion in geography.
b) in other subjects? is it different/similar?
- 10) would you want to change how much you take part in class discussion in any way?
- 11) what happens if someone gets an answer wrong? (what does the teacher do about it?)
- 12) how do you feel if you get an answer wrong? what do the other students do? (girls? boys?)
- 13) if the teacher asks you a question, how likely are you to get it right?
- 14) if you don't know an answer who would you ask?

15) can you think of a particular time when you wanted to ask the teacher a question but didn't? why?

16) could the teacher do anything to make it easier for you to take part in class discussion?

17) what could be changed about geography to encourage you to take part in class discussion?

18) how would you describe your achievement in geography?

19) if the teacher left the room and there was no reliever, who would you consider to be a class leader or in charge in geography?

20) what do you think of school in general?

21) who do you talk to at home?

22) is there anything else you would like to say about geography/other subjects/class discussion...

Thank you!

Appendix 3.

Questionnaire:

Name: _____

1) what do you think of geography?

2) what do you think of class discussion?

3) who takes part in class discussion in geography?

4) who doesn't take part in class discussion in geography?

5) a) describe in your own words how much *you* take part in class discussion in geography.

b) how much *you* take part in class discussion in other subjects? is it different/similar?

6) would you want to change how much you take part in class discussion in geography, in any way?

7) if the teacher asks you a question, how likely are you to get it right?

8) how do you feel if you get an answer wrong?

9) if you don't know an answer who would you ask?

10) what could be changed about geography to encourage you to take part in class discussion?

11) could the teacher do anything to make it easier for you to take part in class discussion?

12) how would you describe your achievement in geography?

⇒ Thank you!