GENDER DIFFERENCES IN SECOND-LEVEL SCHOOLING

by

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ABSTRACT

This thesis is concerned with gender differences in Irish second-level schooling. The problems generated by this type of gender-differentiation are identified in the maintenance of sex-stereotyped career choices, the status associated with each sex in the labour force, the division of labour in the home and the contribution of the sexes to the general construction of knowledge.

The extent to which gender differences exist in schools and in school-related activities is established, and it is shown that considerable variation exists between boys' and girls' subject choices and career expectations. It is also revealed that boys' and girls' extracurricular activities tend to be determined on the basis of their sex.

It is subsequently shown that both sexes perceive and reject the school's attempt to channel them into sex-stereotyped roles; the extent of this rejection is limited to verbal disagreement as the pupils have limited opportunity to express overt resistance.

Finally, the findings indicate that the gender differences in the pupils' behaviour and attitudes can be attributed to the influence of the home and the peer-group. It is discovered that the pupils do not perceive this influence as readily as they perceive gender-differentiation in the school.

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DEDICATED TO MY PARENTS,
NOREEN AND DES NOONAN.

CHAPTER ONE

THE PROBLEM OF GENDER DIFFERENCES

The topic of this thesis is gender differences in second-level schooling, with particular reference to the Irish educational system. This chapter will begin by discussing the place of gender differences in the sociology of education and will proceed to identify the problem towards which this work is addressed. Directly related to the discussion of the problem, the relevance of the research in the context of present-day Ireland will be demonstrated. The chapter will then outline the objectives of the study and in the final section, the terms which are used frequently throughout the work will be defined.

INTRODUCTION TO THE SOCIOLOGY OF GENDER AND EDUCATION

The issue of gender differences has been well documented in sociology since the 1960's, with attention being drawn to the area as a result of the increased awareness of the feminist perspective and the increased

popular interest in the concept of 'womens' liberation'. Theories were advanced by writers such as Friedan (1963), Oakley (1974) and Sharpe (1976) to explain the origins of sex-stereotyping and, as a result, the formative influences in the individual's background which included the family and the school have come under close examination. While the early advances in the study of gender differences have since developed into more distinct disciplines, more recently embodied in the growth of 'Womens' Studies' in the 1980's, the sociology of education provided a suitable framework for the analysis of gender roles in schooling.

Sociology which has been consistently concerned with inequality, focuses on both manifest and latent disparity within this field of study. As interpretations become more erudite, it has become apparent that gender differentiated treatment of the sexes warrants as much attention from the sociology of education as social class and racial determinants of educational opportunity;

> "Sexual inequality and the ideology which sustains it is neither incidental nor accidental. It is as much a part of the politics of education as the indoctrination which reproduces the class division in society. Sexual inequality cuts across class and race divisions". (Spender and Sarah, 1980, p. 31).

Nevertheless, much of the recent research in this area remains tied to studies of social class inequalities. King (1971), investigating the functional and symbolic values which young people place on

education, asserts that the findings are substantially different between middle-class boys, middle-class girls, working class boys and working class girls. Byrne (1978) takes up the theme of interaction between social class inequalities and gender inequalities but argues that the aggregation of inequalities creates a cumulative cycle of underachievement. This type of analysis has given rise to the idea of working class women being doubly disadvantaged while black working class women are deemed to be trebly disadvantaged.

McDonald (1980) also focuses on the interconnectedness of gender relations and social class. According to McDonald's organization of theoretical proposals, sex roles are originally learned in the informal setting of the family and are heavily imbued with the social class values of that unit. Formal education replaces the family as the centre of learning when the child goes to school and one of the main tasks of this formal system is to draw upon the child's experience, objectify it, focus on the abstract interpretation and generally "de-contextualize" the child's information so that his or her knowledge is no longer entirely dependent on the context of the home. While fulfilling this function, the formal educational system simultaneously "re-contextualizes" the child's information in the school environment so that it becomes school knowledge. School knowledge, according to McDonald reflects the values of the dominant class in society, so that the child who comes from a middle-class background should find no difficulty adjusting to the process of re-contextualization, including as it does the abstracted but unaltered class-based definitions of masculinity and femininity. A working-class child, on the other hand, may find a lack of continuity between home

knowledge and school knowledge so that while the offspring of the middle classes retain their social class values and endure only the reproduction of traditional middle-class sex-roles, the working-class children are doubly disadvantaged in finding both their social class values and associated sex-roles unadaptable to the new environment. Thus, the sexual division of labour which is reinforced in the process of schooling is that of the dominant class.

However, it may be argued that the emphasis on social class determinants in the study of educational participation obscures the focus on gender differences, although social class cannot be discounted as an unimportant variable. Rosemary Deem (1984) has considered the availability of data in Britain on gender inequalities and has found that in studies where the issue is combined with social class inequalities, the latter are the predominant concern. Deem attributes this tendency to the popular notion that class differences are products of the social process and therefore changeable, while gender differences are more liable to be seen as natural and unchangeable.

It is with this problem in mind that this thesis proposes to deal specifically with gender differences and the means by which the sexual division of labour is reproduced, with little emphasis on the issue of social class. It is expedient for practical purposes as well as theoretical reasons that this measure be taken, as the sample studied is relatively small and unsuitable for social class analyses.

THE PROBLEM OF GENDER DIFFERENCES

The problem created by gender differences in second-level schooling lies in the fact that girls and boys may be subject to treatment which deprives them of equality in many aspects of life. At the overt level, career options may be limited as a direct consequence of subject selection in school so that girls are excluded from traditional male careers such as engineering and mechanics, while boys are directed away from areas such as nursing or primary-school teaching.

Another effect of gender-based educational practice is the reinforcement of traditional masculine and feminine roles which are echoed both in the home and in the broader social sphere. In Michelle Stanworth's (1983) study of sexual divisions in the classroom, both male and female teachers in co-educational schools were questioned about their expectations for their pupils' future. Stanworth proposed that the occupations in which the teachers envisaged their pupils in the long-term determined the pattern of interaction in everyday classroom life. Furthermore, she argued that this phenomenon was closely related to the teachers' notions of masculinity and femininity. Stanworth found that for the most part teachers did not foresee their female pupils in occupations outside the traditional stereotyped areas of women's work (for example nursing, teaching and secretarial work). In a particular example, a female pupil who had already informed the researcher that she would be interested in pursuing a career in law was envisaged thus in five years time by her female teacher:

> "I can see her having a family, and having them jolly well organized. They'll get up at the right time and go to school at the right time, wearing the right clothes. Meals will be ready when her husband gets home. She'll handle it jolly well".
> (Stanworth, 1983, p. 30).

Thus, despite the fact that more women than ever participate in the paid labour force (in 1983, according to the 1985 Working Party on Women's Affairs, 32% of the total estimated female population in Ireland aged 15 and over, and 20% of the total number of married women participated in the labour force), housework and childcare are still considered the preserve of women. These additional responsibilities of employed women have repercussions in the workplace, as few females attain positions of influence and authority. As Hannan et al. (1983) have discovered in their research amongst young people in the 20-24 age bracket:

> "A very high proportion of young women are employed in non-career line junior non-manual positions, or as professionals - such as teachers and nurses - they have limited career opportunities".
> (Hannan et al., 1983, pp. 69-70).

Women, therefore, do not seem to be in a position to change the balance of power in the male-dominated economic and political worlds.

A third consequence of gender-differentiated treatment in the schooling years concerns the social construction of knowledge. According to Mary Cullen (1987), most knowledge is value-laden by its very nature as it is created out of human interaction with the environment. As the male is commonly upheld as the representative of the human race, most knowledge is based on the male perception of reality and is therefore imbued with patriarchal values. Cullen argues that this lends a whole new meaning to the concept of 'boys' subjects', as they can be seen not only as subjects allocated to or chosen by males but as subjects which constitute male understanding. Central to the male construction of social knowledge is the view that men are the dominant sex and females are the subordinate or inferior sex. This message, which is culturally transmitted through the school curriculum, serves to validate an educational system which reproduces the types of inequality that have been indicated, that is, gender-based judgments of suitable careers and prevailing notions of the roles appropriate to males and females in society.

SIGNIFICANCE OF THE RESEARCH IN THE IRISH CONTEXT

Women constitute almost half of Ireland's total population although there is considerable variation between the different age-categories of women as is evident from Table 1.1. With such a large proportion of young women in the country, it is interesting to look at the sex differences in Leaving Certificate pupils' marriage expectations and aspirations to combine work with marriage and childrearing, with figures from the same year (see Table 1.2). Over

50% of the female respondents expected that they would give up their job to mind children on a full-time basis, while only 2.9% of males shared this expectation. Conversely, 63.6% of males declared that they would continue in full-time employment while their spouse gave up work completely to mind the children. Only 0.2% of females expressed a similar expectation. These are dramatic figures rendered all the more so as they are expressed by representatives of an age category (the under 29's) that constitutes over 50% of the Irish female population.

Clearly, young Irish women see themselves in the traditional role of home-makers, taking the larger share of responsibility for housework and child-rearing. Of those who foresee themselves with a continuing role in the paid labour force after the birth of a child, part-time work is the expected norm. Is this a cause or a symptom of the fact that the work of women in general does not have the same status in Irish society as the work of men?

Again, the norms and values considered appropriate for males and females are evident in the educational system. In 1982, girls constituted 51.6% of second-level pupils in Ireland, while boys made up 48.4% of the total. However, boys appear to have access to a greater range of subjects than girls. Hannan et al. (1983) found that girls were virtually absent from Technical Drawing, Building Construction, Engineering Workshops and Applied Maths, while the only subject where boys were virtually absent was Home Economics. The proportion of girls taking Higher Mathematics and Physics was almost insignificant in comparison to the figures for male representation in

TABLE 1.1 AGE STRUCTURE OF THE FEMALE POPULATION (%)

YEAR	AGE						TOTAL
	UNDER 15	15-29	30-44	45-64	65+	OF WHICH 15-64	
1951	28.8	21.4	19.3	19.5	11.1	60.1	100.0
1961	30.6	18.8	17.7	21.1	11.8	57.6	100.0
1966	30.7	20.3	16.2	20.7	12.1	57.2	100.0
1971	30.7	21.7	15.1	20.4	12.1	57.2	100.0
1975	30.4	22.9	15.7	19.1	11.9	57.7	100.0
1977	30.2	23.5	16.0	18.5	11.9	57.9	100.0
1979	30.0	24.1	16.2	17.8	11.8	58.1	100.0
1981	29.7	24.3	16.9	17.3	11.9	58.5	100.0

Source: Working Party on Women's Affairs and Family Law Reform (1985)

TABLE 1.2 SEX DIFFERENCES IN MARRIAGE EXPECTATIONS, AND IN ASPIRATIONS TO COMBINE WORK WITH MARRIAGE AND CHILDREARING (LEAVING CERT. SAMPLE 1981)

	Percentage expecting to marry	Expected median age of marriage	Expectations about combining work, marriage and child-rearing roles, on marriage and birth of child.			Perceptions of future spouse's expectations
			(i) Would give up job to mind children on a full-time basis	(ii) Would combine part-time working with minding children while spouse worked full-time	(iii) Would continue to work full-time while spouse would give up work to mind children full-time	"You would give up work (full-time or part-time) while spouse would work full-time or part-time
	per cent	years	per cent	per cent	per cent	per cent
GIRLS (N=2015)	97.0	25.0	50.1	40.0	0.2	92.0
BOYS (N=1715)	96.0	25.9	2.9	5.9	63.6	12.0

Source: Hannan et al. (1983)

these subjects, while boys were slightly underrepresented in Languages, Art and Music.

Kathleen Lynch (1987) has investigated another aspect of sex-role development in the Irish educational system with her study of the ethos of girls' schools. This work identifies factors outside the sphere of the academic curriculum which contribute to gender differences and these factors she locates in the influence of extra-curricular activities. Lynch's work will be reviewed in greater detail in the following chapter of this thesis, but at this stage it is appropriate to point out that gender-differences in Irish schools are not confined to subject take-up rates, and recent research has begun to explore the implications of everyday school activities.

OBJECTIVES OF THIS STUDY

The principal objective of this study is to assess the contribution of schools to gender differences between girls and boys. In order to do so, the initial objective must be to establish that gender differences exist in schools and in school-related activities. As part of this enquiry, the form that any disparity takes amongst the pupils whether attitudinal, behavioural or a combination of both will also be established.

The second step in fulfilling the aims of the study will be to analyse the extent to which pupils perceive sex-stereotyping in school and the extent to which they resist or conform to this process. An

essential aspect of this investigation will be the comparison between school types, as one might expect that pupils in a coeducational school will be more aware of pressures to conform to sex-roles than pupils in a single-sex school.

Thirdly, this research aims to ascertain the origin and importance of the gender-role concepts that the pupils themselves bring to the school. An integral part of this assessment will involve enquiries into the pupils' home-life and peer-group activities.

THE TERMINOLOGY DEFINED

GENDER: The term 'gender' refers to a social identity as opposed to the term 'sex' which refers to a biological or anatomical identity. While sex may be defined as the case of being male or female, 'gender' refers to learned concepts of masculinity and femininity. This is expressed succinctly by Eisenstein (1984) as she traces the conceptual division between the two terms:

> "Sex meant the biological sex of a child - was it born anatomically a male or a female member of the human species? Gender was the culturally and socially shaped cluster of expectations, attributes and behaviours assigned to that category of human being by the society into which that child was born". (Eisenstein, 1984, p. 37).

But why is it necessary to have two discrete concepts of sex and gender? The suggestion is that gender varies from one culture to another, sometimes directly related to the physical differences between the sexes but sometimes possibly in opposition to 'natural' characteristics.

To illustrate this point it is interesting to look at the variety of 'primitive' cultures that exist. Prior to the advances in anthropological research in the early part of this century, it had long been supposed that in primitive societies women were physically befitted for the task of childcare, for no other reason than the fact that females give birth to children and have the ability to suckle them. Men were therefore deemed to be the natural hunters and providers as women, tied to childcare, were deprived of physical mobility. However, in the 1920's and 30's, the anthropologist Margaret Mead discovered that primitive societies did not always conform to this stereotype. In her research among the Tchambuli tribe in New Guinea, Mead found that the social differentiation by sex was the reverse of Western gender expectations. There, men were reared in a pampered and coddled environment and as adults were petty, gossipy, wary of each other and easily upset. Men wore elaborate jewellery, did the shopping and their pastimes included painting and dancing. On the other hand, women were reared to be more intellectually alert and more enterprising than men. Women were also less concerned with their appearance and generally had dominant and assertive personalities. Mead's work constitutes one of the most important discoveries of the twentieth century for both anthropology and social research on the concept of gender.

This type of culture that has recently come under focus differs radically from Western culture as is evident in the work of Kate Millet (1977) who presents a catalogue of our society's normal gender behaviour. Here, women have 'expressive' traits (Millet adapted the terms from the work of Parsons) such as affection, sympathy, friendliness and conformity, while according to Millet men have 'instrumental' traits such as aggression, ambition, rationality and responsibility. Millet, a radical feminist, interpreted Western gender expectations as male propaganda orientated towards the oppression of women but Sue Sharp (1976) interprets these gender behaviours as a product of the economic structure of our society. According to Sharp, in societies where the economy centres on the tending of crops or animals (tasks which necessitate remaining close to the home) both sexes are taught traditionally 'feminine' behaviour, that is, compliance and nurturing skills. Accordingly, societies in which the economy depends on hunting teach their young of both sexes to be assertive and independent. Sharpe argues that our society places a high value on the development of motor skills which require the physical strength characteristic of the male. Thus there is a high degree of gender differentiation between the sexes, to the extent that the male is considered superior while the female is, by implication, inferior.

SEX-ROLE SOCIALIZATION: A role may be defined as the behaviour that we expect from an individual occupying a certain position. Crucial to this concept is the word 'expect', as every social role demands not only that the individual should behave in an unsurprising way, but that the individual behave in a

socially-prescribed manner. Sex-roles, therefore, are prescribed roles according to sex and a consequence of the conceptual division between sex and gender.

Sociology's concern with sex-role differentiation can be traced back to the work of Talcott Parsons in the 1950's. One of the founding fathers of structural-functionalism, Parsons was concerned with the way in which individuals were embodied into the structures of society and had been developing the theory of socialization since the 1940s. The term 'role' had been popular in Sociology since the 1930's and Parsons had been employing the concept of role as a basic tool in the process of socialization. In 1955, Parsons brought together the fundamentals of role-theory and socialization theory and applied them to the notion of gender, asking how sex-differentiated roles could be explained. In structural-functionalist terms, he came to the conclusion that each role had its purpose within the family as an institution.

Women played the 'expressive' role and men the 'instrumental' (These terms and their adaptation by Millet (1977) have already been discussed under the heading of 'gender'). Furthermore, Parsons explained that individuals were socialized into their sex-role through a psychological process in which the role became 'internalized'. Sex-roles were reproduced from one generation to the next as parents ensured that their children internalized the same 'gender personalities'. This theory of sex-role socialization has since been substantiated by the work of Kohlberg (1966) who shows that children attain their gender identity by the age of three and continue

to seek more information about appropriate sex-roles outside the home environment for many years later. McDonald (1980) asserts that the formation of identity is such a complex process that it cannot be 'assumed' to be successfully learned at either a conscious or unconscious level. Furthermore, McDonald argues that we need more than an analysis of the ways in which cultural messages are produced and transmitted. In fact, what is required is an analysis of the way in which cultural messages are received by the individual. Lacking this type of research, it is impossible to guage the extent to which individuals internalize or reject traditional sex-roles.

However, one of the major critisisms that has been directed at Parsons' work, particularly by feminist analyses in recent years, is that Parsons failed to acknowledge those who did not automatically conform to their prescribed sex-role. Perhaps an even more important criticism is that Parsons based his entire work in the area on the assumption that the sex-roles of males and females were separate but of equal status. The conflict and power struggles which can run as undercurrents beneath the socially-defined behaviour of the sexes have since been recognized by sociology.

Nevertheless, Parsons can be credited with the introduction of what Carrigan, Connell and Lee (1985) term 'the sex-role framework' for the study of gender within the social sciences. Considering that role theory enjoyed immense popularity in American sociology in the 1960's and 1970's, the formulation of sex-role theories provided the conceptual tools that feminists of that era needed to enter mainstream sociology.

SEX-STEREOTYPING: Stereotyping refers to the process by which an individual is categorized according to a particular role and, by extension, the term 'sex-stereotyping' refers to the procedure by which an individual is socially defined according to his or her sex-role. The term is closely related to 'sex-role socialization' and in the light of the previous discussion should require little explanation. However, while socialization occurs primarily in the formative years, stereotyping can continue throughout the individual's life, serving to reinforce the cultural norms and values pertaining to sex-roles. In this context, the school may take on a double significance, as it can be both an agent of socialization (albeit a secondary socialization at the post-primary level) and a social institution which contributes to the reinforcement of values that have already been learned.

However, given the dual purpose of the schooling process and the age-group of the participants in the educational system, many sociologists including Deem (1978), Lobban (1978) and Delamont (1980) use the terms 'sex-role socialization' and 'sex-stereotyping' interchangeably. Throughout this thesis, the same practice will be adopted where the context is deemed appropriate so that the terms will be employed on the basis that they have the same meaning, unless it is specifically stated otherwise.

THE HIDDEN CURRICULUM: The term 'curriculum', in the context of the educational system, may be defined as a course of study. In everyday language, the term is frequently used to describe the formal

academic work of the school, which we may refer to as the 'official' or 'overt' curriculum. This dimension of the curriculum includes the subjects that are taught, the textbooks that are prescribed, the teaching methods that are employed and the examinations that are designed for assessment.

However, in the 1960's the term 'hidden curriculum' was popularized in the sociology of education. The term was used extensively in the work of Philip Jackson (1968) who found that the everyday activities in schools, outside of the official curriculum, acted as a medium through which norms and values were transmitted. These activities included routines, rules and expectations which dictated acceptable behaviour, such as ceasing conversation with classmates when a teacher enters the room, raising a hand for permission to speak and completing homework that is assigned, whether it be completed correctly or not. Other features of the hidden curriculum include patterns of verbal interaction in the classroom (Sadker and Sadler, 1985), teachers' impressions of their pupils (Stanworth, 1983), the pupils' access to or monopolization of physical space (Mahony, 1985) and staffing hierarchies combined with administrative structures (Davies and Meighan, 1975).

Many sociologists have adopted a functionalist perspective in their analyses of the hidden curriculum, arguing that it serves to transmit those values that are necessary to equip the pupil with a knowledge of how adult society operates. Dreeben (1968), in particular, asserts that the hidden curriculum of the school teaches young people to work independently and to accept responsibility for

their own level of attainment. More importantly, Dreeben states that the hidden curriculum conveys the understanding of social roles so that pupils learn to distinguish between interactions that involve the individual's personality and interactions that depend only on the social position of the participants. Dreeben's analysis of the hidden curriculum focuses on the latent function of the school in providing an education that benefits the individual but many critics question this hidden function of the school. It has been argued by several writers including Bowles and Gintis (1976), Willis (1977) and Apple (1982) that the function of the hidden curriculum is determined by a dominant ideology so that the school participates in the reproduction of the prevalent economic, social and political order. As this section of the chapter is concerned with the introduction and explanation of relevant terms, these theories and their application to gender differences in schools will be explored in greater detail in the following chapter but it is interesting at this stage to observe that there are not many sociologists writing on the hidden curriculum who deny that it has some type of function.

SUMMARY

This chapter has introduced the status of research on gender differences within the sociology of education. The chapter has dealt with the tendency of theoretical perspectives on educational inequality to emphasize social class determinants and it has been argued that gender differences in the schooling system merit equal attention.

The problems that arise in other spheres of social interaction following gender-differentiated treatment in schools have been discussed and considering the evidence of young Irish women's expectations for the future, the relevance of research into gender differences in Irish second-level schools has been justified. However, the school is not solely responsible for the creation and maintenance of gender differences between young males and females and it is for this reason that the objectives of the study include an investigation of the influence of the home background and peer-group. It is anticipated that the results of this research will reveal the extent of the school's influence on the existence of gender stereotypes.

The final section of the chapter defined some terms that appear regularly throughout the thesis, namely (i) gender, (ii) sex-role socialization, (iii) sex-stereotyping and (iv) the hidden curriculum. Many of the theoretical analyses associated with these terms have been reserved for the next chapter which will incorporate in the general review of literature both theoretical and empirical studies on the problem of gender differences in second-level schools and school-related activities.

The following chapter will conclude with the hypotheses for this study, which will be formulated in the light of the reviewed literature.

CHAPTER TWO

THEORETICAL PERSPECTIVES

According to Sandra Acker (1984), a starting-point for sociologists of education who wish to familiarise themselves with the theoretical literature on gender is to understand the distinction between 'fundamental' and 'implementary' approaches. Acker describes fundamental approaches as those studies which seek basic, universal explanations, asking why the nature of humans or the organisation of society requires the subordination of women. Implementary approaches, on the other hand, are defined by Acker as the analyses of the means by which the patterns of domination and subordination are reproduced. The latter is often concerned with the educational system as Acker identifies it as one of the principal agents of sex-role socialization.

To some extent, the organisation of this chapter is not dissimilar to the twofold distinction that governs Acker's essay. Theoretical perspectives including both of Acker's approaches to understanding the problem of gender differences in education will be reviewed. This will include theories on why gender differences exist and theories on how these culturally-created differences are

transmitted. The following chapter will review the major empirical research in the area and the findings that demonstrate both the existence and the reproduction of gender differences. That chapter will be divided into four main sub-headings dealing with the official curriculum in schools, the hidden curriculum, the comparison between school types and the home/peer-group influences. Throughout the review, relevant Irish research will be included in the main body of literature, as it shares the importance of British and American research. Finally, in the light of the literature review, the hypotheses which form the basis of the present research will be presented.

THEORETICAL OVERVIEW

Many of the earlier approaches to understanding gender differences have been functionalist in nature and this is particularly true of work in the 1950's and 1960's. As explained in the first chapter, Talcott Parsons interpreted the sexual division of labour as an essential element of social order contributing, just as occupational differentiation did, to the overall, smooth management of society. Each sex was assigned an 'appropriate' and clearly defined role within the family unit so that the conflict between the individual members was minimised and cooperation heightened. The type of education received by the sexes contributed to the socialization of young people into the sex-roles which they would adopt within their own families as parents, the female being prepared for the home-centred tasks and the male being equipped with the education he needed to provide financial support for the family. However, that is not to say that the functionalists were not in favour of academic education for females.

In fact, Parsons (1959) argued that there was a tension between the domestic destiny of girls and the individual achievement ethic. This could be resolved by increased educational participation of females as

> "The educated woman has important functions as wife and mother, particularly as an influence on her children in backing the schools and impressing on them the importance of education."
> (Parsons, 1959, p. 452)

However, with the growth of the feminist movement in the 1960's and the growing sociological awareness of conflict in social relationships, functionalist explanations such as these began to lose their prestige. The previously unquestioned assumption that women were the natural heirs to a domestic lifestyle began to be challenged. This thesis shall look firstly at the form that the feminist theories have taken and in the light of those theories, the interpretations that may be taken of other conflict theories in this field of study.

Feminism is by no means a unified concept. At a broad level, Jagger and Struhl (1978) have identified four approaches to feminism in America, these being (a) Liberal feminism (b) Marxist feminism (c) Socialist feminism and (d) Radical feminism. Most widespread is liberal feminism, the first of these perspectives. Liberal feminism seeks equal rights and equal opportunities for females at all institutional levels of society. Those who advocate this form of feminism focus on specific areas of inequality as they become manifest and adopt an issue-by-issue policy in the gradual combat against overt sex-discrimination. Significantly, liberal feminism does not focus on the underlying mode of production in the society with the result that

the pervasive ideology of capitalism is accepted without question. One of the predominant elements of capitalist society is the individual achievement ethic and embracing this feature, liberal feminists strive to gain equal opportunities for women to achieve their potential and participate fully in the existing social structure. Therefore, this form of feminism is predominantly concerned with action directed towards blatant examples of discrimination in areas such as womens' wages, educational qualifications, access to jobs and promotional opportunities.

Liberal feminists frequently argue that the improvement of women's position in society is essential to economic development as the economy is currently deprived of underused female talent. It may be difficult on occasion to distinguish the core issue from the supporting argument in this type of approach to eliminating equality. However, liberal feminists have made many inroads into the problem of gender-based discrimination in recent years and it may be that this type of approach is a necessary antecedent for those approaches that seek to analyse the latent or more subtle forms of discrimination in society.

Marxist feminism and socialist feminism are perspectives that are derived from a common source and are terms that are often used interchangeably. Acker (1984) points to the fact that "marxists" have been contrasted with "feminists" and that writers such as Banks (1981) use the term "socialist feminist" as a synonym for "marxist feminist". Acker herself clarifies her use of the term "marxist feminist" by stating that this indicates those whose views on gender are related to their interpretation of Marx's work. This does not necessarily imply that marxist feminists are advocates of orthodox

marxism across the broad political spectrum. Similarly, Acker believes that those who align themselves with socialist views in the party political arena may be quite radical in the sphere of sexual politics. Keeping in mind the theoretical overlap between the perspectives it is still possible to extract similarities and contrasts between the two.

Broadly speaking, both marxist feminism and socialist feminism identify capitalism as the root of female oppression and advocate fundamental changes in the mode of production to promote greater equality. However, these two perspectives differ in their explanation of the way in which capitalism comes to invest greater authority in males. Marxist feminism may be traced back to the work of Engels in 1884 who argued that women's subordination to men is a consequence of private property ownership. Men began to accumulate private property as a result of tending animals and fields in their territory while women were engaged in childbirth and child-rearing. This gave rise to the notion of patriarchy, a system which required men to pass their property on to their sons. To ensure their offspring were their true heirs, men began to move away from group marriage in favour of monogamous marriage where the complete fidelity and probity of his wife assured the husband of his paternity. In this way man's economic power in the ownership of private property became synonymous with men's social control of women. However, marxist feminism fails to explain how men came to be the sex that domesticated animals and fields in the first place but advises that women's liberation will not come about until women enter into the world of economic production. This proposal has also invited criticism upon marxist feminism, as productive labour is unquestioningly interpreted as having higher value than domestic labour.

Socialist feminism then is a broader approach to explaining womens' position in society although like marxist feminism, it advocates the replacement of the capitalist mode of production with socialist production. This approach, however, attempts to analyse more deeply the nature of the relationship between capitalism and patriarchy. In doing so, socialist feminism identifies the concepts of masculinity and femininity as constructs of capitalism, with the approved male characteristics of competitiveness and domination corresponding with the principal values of capitalism to a much greater extent than the characteristics attributed to females, for example, cooperativeness and compliance. The socialist feminist approach, therefore, attributes woman's subordinate position not only to the original introduction of a private property system but to the fact that this system was more than likely to have been implemented in the first place by men with the knowledge that a greater emphasis on economic production would increase the status of their sex as it would largely exclude women, already firmly ensconced in the sphere of domesticity with traits and interactive techniques appropriate to their role. Accordingly, socialist feminism sees the entry of women into the paid labour force, the creation of solidarity with men and the implementation of socialism as the only action which could reverse this trend.

Radical feminism presents yet another interpretation of the relationship between the sexes. In common with both marxist feminism and socialist feminism, this perspective identifies patriarchy as the cause of women's subordination but radical feminists argue that the relationship between patriarchy and the mode of production is weak. According to this interpretation, patriarchy exists independently of the prevalent economic system and

is a feature of all societies. Oppression of women is therefore seen as a universal problem and one which cannot easily be solved by an economic revolution. Instead, radical feminists insist that the change can only come about through increased consciousness-raising on what it means to be female. For this reason, this type of approach has been critisised as being predominantly descriptive rather than analytical and indeed the methodology favoured by the radical feminists contrasts considerably with the other feminist approaches. Ethnomethodological studies are common within this perspective as are group discussions, autobiographies and uncovered historical accounts of women's lives.

One of the primary concerns of radical feminism is to challenge assumptions on what constitutes knowledge. Taking Berger and Luckmann's (1971) contention that knowledge is socially constructed, radical feminists argue that the system of patriarchy has ensured that all knowledge is male knowledge. To examine this hypothesis, radical feminists have found that one of the most accessible routes into the construction of knowledge is the study of language. Here, some of the most obvious examples of male bias include the use of terms such as "man" and "mankind" when clearly "humankind" is intended and "his" to cover both "his or her". Language can also imply the inferiority of women in more subtle ways. One is reminded of the many occasions in the Irish media when adult females who may be as many as ten years over the age of eighteen are referred to as "girls" where males over eighteen are unhesitatingly called "men". Similarly, Stanworth (1983) points out that terms such as "woman athlete" and "woman physicist" convey the impression that these careers are normally considered to be men's domain. Radical feminism extends its interest to the images of women

that are presented in the media and in learning schemes, assessing the control that males exert over the construction of female identity. According to this perspective, only the generation of female knowledge or an alternate pedagogy will undermine the system of patriarchy which keeps women suppressed.

That these diverse feminist perspectives can be directly translated from the analysis of society in general to the analysis of the educational system is evident in the work of Sue Middleton (1984). Middleton reduces the four primary feminist approaches to three, incorporating Marxist feminism in the discussion on early radical perspectives. This chapter will employ Middleton's categories and discuss the theoretical approaches to gender and education under the headings of the liberal feminist perspective, the radical feminist perspective and the socialist feminist perspective respectively. It must be stressed at this point that while these discourses assist in the conceptual organisation of the various approaches, not all of the sociologists who contribute to the work reviewed within the three categories would classify themselves as feminists. However, feminism is defined as the "advocacy of women's rights on ground of equality of the sexes" (The Concise Oxford Dictionary, 1982) and it is almost impossible to discover a post-functionalist writer on gender and education who does not advocate some form of equality between males and females. Therefore it can be argued that while those who theorize on gender and education in the 1980's may not be politically committed to the principles of feminism, they are nevertheless feminists in the broad sense of the word.

(i) THE LIBERAL FEMINIST PERSPECTIVE

As already indicated in the discussion on the general liberal feminist stance, this perspective embraces the ideology of capitalism, which allows one to attain social, economic and political status on one's own merit. The goal of the liberal feminists is to ensure that women are included in this system and that the rights that capitalism guarantees are extended to all females. Within the sociology of education, this means that liberal feminism is primarily concerned with equality of access to education, and more recently, equality of opportunity within it. Attaining equality of access was itself a long battle. Jane Thompson (1983) looks at the entry of women into the British educational system in the late nineteenth and early twentieth centuries and explains that the reluctance to admit women earlier can be attributed in part to Darwin's theories and in particular his views on women's capacity to breed. Thompson reveals the popular notion of the time that women would become unfeminine as a result of education and would be unable to follow their true vocation of home-making. However, by the mid 1900's the number of females participating in the educational system both in Britain and Ireland had increased dramatically. In Britain, the 1944 Education Act had provided formal recognition of equality of opportunity as an educational goal, while the 1975 Sex Discrimination Act and the 1976 Race Relations Act acknowledged the issues of gender and race as factors which had as much bearing on the equality debate as the social class issue. In Ireland, the Investment in Education Report of 1966 found that the female rate of participation in second-level education was higher than the male rate.

Unfortunately access to education did not initially imply equality between the sexes. In secondary schools girls were presented with curricula that were comprised of home-orientated subjects such as cookery, needlework and homecare so that education was merely a refinement of their previous knowledge. As late as 1963, the Newsom Report expressed the concern that academic training would educate girls into becoming 'imitation men' and that this was sufficiently worrying to ensure that girls were educated according to their 'main social function'. This function was providing for their husbands and children in the home, according to Newsom. It was at this stage that equality of opportunity in the educational system became an issue with those who advocated the rights of women. As indicated in the first section of this chapter, the late 1960's saw a general retaliation against functionalism, but the majority of those involved in the first wave of critical thinking focused predominantly on social class inequalities. It was left to the liberal feminists to draw attention to sex inequality and so successful were they that it became a widespread concern in the 1970's. Their cause was helped by the fact that the United Nations had passed the following resolution in 1967:

> "All appropriate measures shall be taken to ensure to girls and women, married and unmarried, equal rights with men in education at all levels and in particular
>
> (a) equal conditions of access to and study in educational institutions of all types, including universities and vocational, technical and professional schools;
>
> (b) the same choice of curricula, the same examinations, teaching staff with qualifications of the same standard, and school premises and

equipment of the same quality, whether the institutions are coeducational or not;

(c) equal opportunities to benefit from scholarships and other study grants;

(d) equal opportunities for access to programmes of continuing education, including adult literacy programmes, and

(e) access to educational information to help in ensuring the health and well-being of families".
(from Eileen Byrne, 1978).

Having acknowledged the need for equality of opportunity, liberal feminists began to focus on the subjects that were taken in second-level schools and emphasized the fact that the subjects taken by males and females had serious implications for the representation of women in the labour force generally, and certain occupational areas specifically. Valerie Hannon (1979) points to the fact that in 1975, over four times as many boys as girls passed A-level physics while A-level english literature was passed by twice as many girls as boys. In Ireland, Greaney and Kellaghan (1984) report that at Intermediate Certificate level, where equality of access to science courses had not posed a problem in recent years, more boys than girls took examinations in higher level science and mathematics, which, they conclude, indicates inequality of participation and achievement. Since a broader subject range in schools had become available by the mid 1970's, it became clear at this stage that the problem of gender differences in educational outcome could not be attributed only to the matter of provision. Liberal feminists now turned their attention to aspects of the official curriculum in schools that could be influential in the pupils' subject choice and achievement orientation. Some of

these aspects were identified as buildings and resources, the administrative organisation of the school, the structure of staff hierarchies and teacher-pupil interaction.

Eileen Byrne (1973) argues that the allocation of structural resources has a male bias in that early government regulations for boys' schools provided for science laboratories and technical workshops but this standard was not upheld to any great extent in girls' schools. Byrne reminds us that these old school buildings are still in use today and many remain unaltered. In schools where resources and equipment are available, Rennie and Parker (1987) reveal that girls are often deprived of the opportunity to manipulate these with the same level of control that boys enjoy. Rennie and Parkers' observation of science lessons in mixed-sex groupings revealed that in lessons where the teacher was not aware of the possibility of sexism, boys spent as much time as girls handling the available equipment while girls spent almost five times as much time as the boys merely watching or listening to other pupils' participation.

Discrimination between the sexes as a result of administrative organisation includes the subjects provided and more importantly, perhaps, the allocation of subjects to pupils. While many single-sex girls' schools do not provide subjects like metalwork, woodwork or mechanical drawing, coeducational schools that have these subjects often offer the subject to boys only (Byrne, 1975). Thus, pupils in the junior cycle of second-level school are subject to timetabling restrictions which may have repercussions in the senior cycle. Stanworth (1983) argues that this type of practice disqualifies one sex from choosing certain 'optional' subjects from the senior

course as the normal requirements include previous experience of a similar subject. An example of this is the exclusion of females from technical drawing because they were not allocated metalwork at the junior level.

This disparity between males' and females' educational outcome has also been attributed to gender differences in achievement orientation. The number and status of men and women on the school staff and their influence on adolescents as role models is considered to be an influential factor on the pupils' aspirations. In their 1975 study, Davies and Meighan found that teaching and administrative staff boasted twice as many men as women teachers, with the proportions dramatically increased for subjects like maths and science. In the two schools which they used for their case studies, both had male head teachers and the highest status attained by female teachers was 'Deputy Headmistress'. Considering the effect upon pupils of teachers as role models, the authors of this study concluded that girls would come to accept that men are in authority, while women are 'assistants'. Similarly, the pupils would learn that women cannot expect the same promotion prospects as men.

Teachers' expectations of pupils has also been identified as a factor which affects pupils' self-confidence and level of achievement. Pat Mahony's (1985) investigation of teacher-attitudes revealed that teachers could visualise boys' future careers but that the majority of girls remained "faceless". Perhaps this explains the discovery of Sadker and Sadker (1985) who found that in their study of verbal interaction, teachers gave more attention to boys, as boys shout louder to capture this attention. Boys were given more detailed instructions on how to tackle problems themselves, while girls had tasks completed

for them by the teacher. Thus girls are taught that they are not expected to cope independently.

Evidence of gender-differentiated treatment in the official curriculum leaves the liberal feminist tradition firmly entrenched in the opinion that the problem will be rectified when attitudes towards women change and the obvious obstacles to equal opportunities are removed. In the Irish context, the 1985 Working Party has recommended that this involve some of the following strategies:
(a) programmes to raise the level of awareness of educators, parents and pupils (b) the nomination of women to the selection boards for principals (c) the need to make teachers aware of their role in eliminating sexism in education and (d) regional seminars to make school managers and teachers aware of all aspects of sex differentiation within the school situation.

(ii) THE RADICAL FEMINIST PERSPECTIVE

At the core of the radical feminist perspective is the belief that patriarchy, which is associated with but not dependent upon capitalism, is the cause of women's 'oppression' in society. Examining the relationship between gender and education from a radical feminist viewpoint, one finds that the predominant issues are the construction of school knowledge, the portrayal of females in text-books and the existence of sex-bias in classroom language. Dale Spender (1982) looks at that which constitutes knowledge in our culture and traces the ways in which women have been systematically obliterated from philosophic, religious, artistic and political tradition. According to Spender, men have always been concerned only with the pronouncements and writings of other men. Men's present knowledge

adds to their past knowledge so that the cumulative effect is a body of knowledge that has been constructed by males. Womens' exclusion from this academic tradition is then justified in terms of the fact that they have never had anything to contribute. However Spender asserts that:

> "It is not that women have not played an equal part in history, but that men have written the history books and have focused on the problems of men: it is not that women have not generated religious thoughts, formulated political philosophies, explained society, written poetry or been artists, but that men have controlled the records for religion, philosophy, politics, poetry and art and they have concentrated on the contributions of men".
> (Spender, 1982, p. 16).

Radical feminist sociologists of education therefore reject the apparent success of the liberal feminists' effort in obtaining equality of access to education for women. According to the radical feminist interpretation of this development, women have merely succeeded in gaining entry to men's education. Achieving equality of opportunity within the educational institution will prove an impossible task while our intellectual inheritance remains permeated by patriarchal values. The radical feminist perspective offers an alternative pedagogy based on a rediscovery of women's writing and a recognition of their contribution to subjects such as history, literature and social studies. Another endeavour would be the inclusion of Women's Studies in the school curriculum. However, the road to reconstruction will not be easy. Mary Cullen (1987) points to

the fact that patriarchy in the curriculum tends to escape detection in a number of ways. Firstly, there is a tendency among modern scholars to treat examples of patriarchy as isolated incidences, thus avoiding a deeper analysis of the implications for women's education. Secondly, evidence of patriarchy in the work of renowned writers is often excused as merely reflecting the norms of their period in history. The irony of this argument is that the dominance of male values is used to excuse the dominance of male values! Cullen concludes that the answer is to make patriarchy visible in the curriculum so that its impact may be analysed as any other value-system encountered. This would involve teaching pupils to recognise, to point out, to name and ultimately to confront patriarchal values and language in education.

The radical feminist tradition has also contributed greatly to our understanding of the way in which women are portrayed in textbooks. In her analysis of social studies texts, Marion Scott (1980) identifies three categories of sexism. Firstly, there is the derogation of women in the texts where females are allocated to subordinate roles. The present author has found many illustrations of this in science and computer texts where men are found to control the equipment while women are literally in the background engaged in secretarial or subservient work such as tidying, handing papers to the male boss or even making tea. The second manifestation of sexism that Scott identifies in texts is the invisibility of women. Here, there is no mention of females so that one is led to believe that they do not exist at all within that sphere of concern either as contributors to or receivers of knowledge. Thirdly, there are texts that imply the insignificance of women amongst which Scott includes books that deal with women's experience in the area of study but not the extent of their involvement. Scott concludes by arguing that teachers should be

bound by impartiality and objectivity to provide alternative texts or opposing arguments whenever they come upon these forms of bias in textbooks.

In addition to the analyses of female representation in textbooks, radical feminism focuses on the more subtle dissemination of patriarchal values through language. As we have seen in the discussion on general radical feminist concerns, the use of words such as 'mankind' instead of 'humans' and 'he' instead of 'he or she' are rejected as terms which exclude women from the store of cultural knowledge. However, Stanworth (1983) probes more deeply into the implications of these terms for girls' education and reminds us that it is not only the common use of these terms but the way in which they are interpreted by students that determine the impact of their message. Stanworth recounts an American study in which male and female students were given phrases such as "Industrial Man" and "Political Man" and asked to provide accompanying illustrations. A second group of students were allocated the same task but with the terms changed to "Industrial Life" and "Political Behaviour". The result of the exercise was that the majority of the students in the first group produced pictures of males in industrial and political activity while the second group provided a much higher proportion of pictures depicting females engaged in the same type of activity. This would seem to indicate that language plays a greater role in the formation of gender identity than has previously been acknowledged and renders implausible the explanation of these terms as 'neutral' linguistic devices.

The discriminatory function of language in the schooling process is also evident in the type of phrases that teachers use to

describe their male and female pupils. Gage and Berliner (1984) argue that the stereotypes which can arise out of teachers' language can become the norms against which pupils of both sexes assess their own behaviour. The authors substantiate their claim by providing the evidence from Kemer's 1965 study of American junior high schools. Here, the teachers were asked to select adjectives that describe "good" female students and "good" male students with the following lists emerging:

"GOOD" MALE STUDENTS	"GOOD" FEMALE STUDENTS
Active	Appreciative
Adventurous	Calm
Aggressive	Conscientious
Assertive	Considerate
Curious	Cooperative
Energetic	Mannerly
Enterprising	Poised
Frank	Sensitive
Independent	Dependable
Inventive	Efficient
	Mature
	Obliging
	Thorough

Source: adapted from Kemer (1965)

Table 2.1
"Good" male students and "Good" female students.

As is evident from this table, the ideal male pupil is expected to exhibit assertive, independent, enterprising behaviour while the female student is considered "good" when she displays cooperative, mannerly

and obliging traits. Again, the use of these terms in classroom interactions contributes to the formation of gender identity for both males and females which leaves radical feminism with the task of identifying and exposing the underlying patriarchal values.

(iii) THE SOCIALIST FEMINIST PERSPECTIVE

In the first section of this chapter, the similarity between socialist feminism and marxist feminism was detected in their common identification of capitalism as the cause of women's subordination. The two approaches differed in explaining the origins of male domination but as indicated, many sociologists including Bank (1981) and Acker (1984) overlook the finer distinctions between the perspectives and use only one term to indicate a synthesis of their elements. Middleton (1984) also incorporates marxist feminism into a general review of socialist feminist approaches and her classification of this perspective as one of the three principal components in the conceptual framework for gender and education will be retained in this work. Socialist feminism may therefore be interpreted as a broad category which comprises those views that identify capitalism as the perpetuator of patriarchy. According to the socialist feminist interpretation of the dominant mode of production in Western society, capitalism is as effectively served by the creation of a sexual division of labour as it is by the maintenance of social class stratification. The division of the human labour force into a dominant sex and a subordinate sex fulfills as many functions as the simultaneous separation of the dominant class and the subordinate class. McDonald (1980) elaborates on these functions and finds that the underlying distinction between men's and women's status in the labour force can be located in the separation between the production of exchange

commodities, which is male-dominated, and the production of domestic commodities which features a large workforce of females. The traditional role of women in the home is assumed to transfer naturally to the workplace but the large percentage of female workers in industries such as food, clothing and items for home consumption leaves women with poorly-paid, low-status employment in contrast to their male counterparts whose labour derives a superior status from its contribution to the market economy. Thus, despite the participation of females in the paid labour force, women's work remains centered on the home and family. Here, according to McDonald, women satisfy one of the major requirements of the capitalist system in giving birth to the next generation of producers and consumers, socializing their children into the norms and values of capitalist society and providing for their health and security.

In addition to this unpaid work, it is predominantly women who undertake the care of the elderly, the sick and the disabled in our society so that women are what Acker (1984) terms "a reserve army of labour". Applied to the sociology of gender and education, it becomes apparent to the advocates of socialist feminism that their primary concern must be the role of the school in the reproduction of the labour force and more specifically, the contribution of the school to the construction of concepts like "masculine" and "feminine" which are conducive to the operation of capitalism.

Reproduction theories have become increasingly significant in the sociology of education since the late 1970's and are based on the premise that the school as an institution not only reflects the values associated with the dominant mode of production in society but contributes to the reproduction of those values in the future

generation by transmitting 'cultural messages' through the hidden curriculum. As a sexual division of labour appears essential to the existence of capitalism, one of the main functions of the schooling process must be to legitimise the social relationships of production and subsequently to reinforce that social order. Thus, according to socialist feminist theoreticians including McDonald (1980) and Arnot (1983), the communication of norms, values and behaviour 'appropriate' to each sex is a crucial process in education. However, most of the available literature to date on the school as an agent of reproduction has been applied to the issue of social class and where the reproduction of gender differences has been considered, there is a tendency to identify the phenomenon as a process that occurs outside of the educational institution. This is particularly true of the work of Bowles and Gintis (1976) who credit the family with a much greater influence on the sexual division of labour than the school. Nevertheless, the school is assumed to perpetuate the gender differences that originated in the family so that the amalgamation of gender and social class distinctions has proved a difficult task for educationalists.

In tracing the history of co-education, Madeline Arnot (1983) states that the policy-makers of the nineteenth and twentieth century who have assumed that girls' and boys' education should be different have posed themselves the problem of placing girls in an educational system designed to reproduce male occupational hierarchies. Arnot finds that the common solution has been to impose the ideology of female domesticity so that there is an element of uniformity in girls' education regardless of their social background. Arnot concludes:

> "Where the two processes of class and gender reproduction collude historically is in the attempted imposition through schooling of a bourgeois family form that entailed the social construction of the female housekeeping wife dependent on a wage - or salary - earning husband. Secondly it involved the development of the myth of female classlessness which blurred or covered over the differences of educational provision for girls of different social classes". (Arnot, 1983).

Consequently, those who have analysed the reproductive role of the educational system have been freed of consideration for females on the basis that all girls undergo similar schooling and the degree of differentiation that exists within male education is not evident within female education. However, it may be argued that the differences between the educational curricula designed for each sex merits as much attention as the social class differences within any one curriculum and for this reason, the remainder of this section on the socialist feminist perspective will be devoted to an analysis of the way in which schools reproduce the gender differences that sustain capitalism.

The most useful theories on reproduction have been developed in reference to social class, and these can be effectively adapted to apply to the reproduction of gender differences. It must be clear at this point that the sociologists whose work will be reviewed in the following pages cannot be classified as "feminists" but that their theoretical analyses are related to the present issue and serve to elucidate the socialist feminist perspective.

According to Bowles and Gintis (1976), the function of the educational system is twofold, in that it seeks firstly to legitimize the social order and secondly to ensure the effective socialization of the next generation into the established patterns of social relationships. The first task of legitimization is fulfilled by the educational system's adoption of the meritocratic ideology, according to which those pupils who emerge from the system with the highest qualifications will have been those who have obtained their position according to their talents, intelligence and individual merit. The apparent justice of this system fosters acceptance of the social order and a general unwillingness to challenge the social division of labour. However, Bowles and Gintis point out that this process constitutes no more than symbolic legitimation. As a result of their research on the I.Q. levels of pupils at various levels of the educational system, Bowles and Gintis arrive at the conclusion that academic achievement has less to do with cognitive ability than the number of years spent in school. The suggestion is that the school itself ensures the legitimation of the social order despite the meritocratic principles that are assumed to affect its operation. In this way, the first purpose of the educational system is closely related to its second function of reproduction.

The reproductive process according to Bowles and Gintis includes those mechanisms and their actions that exist to maintain and extend social patterns of domination and subordination. It follows that the reproductive role of the school is to duplicate the social relationships of production that are essential to capitalism and to affect this in such a way as to avoid conflict and resistance from those who are allocated to the subordinate ranks. Bowles and Gintis argue that this may be achieved only where the reproduction of

consciousness is as important a consideration as the reproduction of technical skills. There are, according to these authors, a number of ways in which the reproduction of consciousness is accomplished.

Firstly, the economic system towards which the division of labour in schools is orientated must generate needs in the individual which it must then be seen to satisfy, indoctrinating the individual with passivity. Secondly, and more importantly for this research, the stratification of the working population must be recreated to obstruct united pressure for social change. The next generation of workers are, in effect, subdivided and guided towards identification with their own type of people. This is expressed succinctly in the following extract:

> "Youth of different racial, sexual, ethnic or economic characteristics directly perceive the economic position and perogatives of 'their kind of people'. By adjusting their aspiration accordingly, they are not only reproducing stratification on the level of personal consciousness, but bring their needs into (at least partial) harmony with the fragmented conditions of economic life". (Bowles and Gintis, 1976, p. 128).

Finally, social institutions such as the family and the educational system are provided to facilitate the reproduction of consciousness and the latter succeeds in its task by means of the 'correspondence principle'. This term implies that there is a structural correspondence between the social relations of the school and the social relations of production, so that the pupils are prepared for the workplace. The correlation between the two institutions manifests itself in the hierarchical division of labour and the stratified

distribution of power. In the workplace the employer or higher managerial executive belongs to an elite minority who wields control over the mass of workers ensuring through the implementation of a regimented work-environment that those in a subordinate position do not have any authority over their labour. Similarly, in education, authority descends in vertical lines from the administrators to the teachers and from the teachers to the pupils. The pupils, like workers, lack control over their labour as they do not have a voice in educational policy, the planning of curricula or the assessment of their work. However, the pupils who remain in the educational system until they reach college or university find that they are gradually invested with greater levels of responsibility for their own work and are ultimately treated with the respect accorded to equals. In summary, the educational institution duplicates the consciousness of the dominant and subordinate individuals in society and successfully reproduces the required division of labour.

There are a number of criticisms that can be directed at the work of Bowles and Gintis while acknowledging the value of their conceptual framework. Perhaps the most obvious criticism is that the authors reserved their insubstantial account of the sexual division of labour for the discussion on family structure. Their work implies that sex-typing occurs primarily in the home where women are seen to be responsible for housework and men for earning the family income. Children perceive this separation between their parents' work and integrate their sex-role into their self-concept, thereby preparing themselves for the economic world of male wage-labour and female domesticity. Similarly, the division of labour in the home facilitates female submission to employment of inferior status in the case of women who will enter the labour market. Be this as it may, Bowles and

Gintis then leave the discussion on the family and the sexual division of labour and turn their attention to the social division of labour within the educational system. From this point onwards, the authors appear to be referring only to male education as they have already explained that women do not participate at every level of the social stratum. But what of women in the educational system? Bowles and Gintis fail to discuss any further division of labour between males and females that may be continued in the schooling process although it is obvious that girls are present in the system, at all levels.

Although Bowles and Gintis did not recognise the phenomenon, it may be argued that the sexual division of labour is transmitted through the hidden curriculum of the school to the same extent and to the same ends as the social division of labour. By extension, the correspondence principle is no less applicable to this process than it is to the latter, albeit under-developed in the work of Bowles and Gintis. It can be suggested that there is a structural correspondence between the sex-roles in the educational institution and the sex-roles in the economic institution. Within the school, this involves the concepts of masculinity and femininity being maintained and reproduced for the most part outside of the official curriculum.

Much of the research undertaken in the radical feminist tradition substantiates this theory; for example the studies of male and female images in textbooks, the constant reference to 'man' in the language of knowledge and teachers' stereotypes of well behaved male and female pupils. However, the socialist feminist perspective departs from the largely descriptive research of radical feminism in providing an explanation for the perpetuation of patriarchy. Other practices which demonstrate the reproduction of masculinity and

femininity outside of the official curriculum includes the segregation of the sexes for extra-curricular activities, the application of disciplinary procedures according to sex and the pupils' own perceptions of life in school. Thus to use a phrase that has already been quoted from the work of Bowles and Gintis themselves, the pupils are manipulated within the educational system into identification with "their kind of people". In this case, however, the term refers to the two sexes rather than the social class categories.

The work of Bowles and Gintis has been criticized by Michael Apple (1982) who sees their work and the work of other sociologists who locate the principal mechanism of reproduction in the hidden curriculum as overly deterministic models of socialization. Apple points to the similarity between theories of direct reproduction and early functionalist analyses of the educational institution indicating that the only difference between the two lies in the fact that functionalism sees the reproduction of a harmonious social order while the neo-marxist theories of direct reproduction see the recreation of an unequal social order. According to Apple, theories that constitute the latter are both pessimistic and incapable of appreciating the complexity of the relationship between institutions.

While Apple accepts Bowles and Gintis' definition of the correspondence principle, he questions the validity of the concept by analyzing the number of factors that determine the operation of the educational institution, in addition to its supposed role of reproduction. In doing so, Apple identifies six "modes of determination" which, he argues, interfere with, if not utterly contradict, the structural correspondence between the school and the economy. These are as follows:

(1) Structural Limitation or the extent to which institutional structures can vary. For example, all schools are not identical.

(2) Selection or the mechanisms that include economic and political support, state intervention and funding sources.

(3) Reproduction / Non-reproduction or the elements of the institution that are orientated towards the recreation of an ideology or a mode of production.

(4) Limits of functional compatibility or the aspects of an institution that actually contradict the reproductive function.

(5) Mediation or that which shapes the interaction among the elements of an institution. For example, social class conflict is a highly influential force in social relationships.

(6) Transformation or the movement towards change within the institution.

Apple particularly emphasizes the last two modes of determination in his later analysis of the educational institution using the existence of mediation and transformation to argue that pupils do not passively absorb the norms and values conveyed through the hidden

curriculum but are aware of these cultural messages and can choose to embrace them, negotiate the terms of their acceptance or reject them completely. In the interaction between social groups and institutional processes, Apple suggests that resistance is one of the most common mechanisms employed by the subordinate members of an institution to obtain a measure of control over their own work. Here, Apple draws a parallel between the workplace and the school, arguing that the two institutions have in common a 'workculture' or 'relatively autonomous sphere of action' within which the alternative norms of the 'workers' develop. These alternative norms are frequently orientated towards solidarity between the subordinate ranks and subsequently, resistance against authority. Apple offers us the example of the factory workers who express their resistance to management by 'hidden means' such as adopting uncooperative attitudes, general consensus to slow down the rate of production or adding and taking from individual workers' output in order to balance production. Apple also acknowledges that the expression of resistance is not confined to male workers as he indicates that female shop assistants operate a similar system. Saleswomen, according to Apple, strive to keep their sales figures in line with each other as low figures could endanger their security of employment and high figures their status with their peer group. In order to achieve this, the women adopt tactics that include avoiding or ignoring customers when the sales figures have already reached the worker's quota for the day, or courting customers when business is slow.

These findings are subsequently extended to the school as an institution where Apple argues that the same type and extent of informal or 'hidden resistance' is enacted by the pupils. The resistance in pupils' 'workculture' includes such activities as getting out of class

on any pretext, ignoring the teacher, smoking and controlling the pacing of lessons by humorous interruption so that the regimented activities of the day may be rendered endurable. Whether the pupils' behaviour may be termed 'resistance' or 'creative adaptation', their lack of passivity points to contradiction within the institution and challenges the notion of simple reproduction. Thus, the mediation or intervention of the pupils themselves limits the school's capacity to satisfy the needs of capitalism and, in the long term, transformation may come about as a result of the social relationships that emerge from the process of resistance.

Unlike Bowles and Gintis, Apple proceeds to analyse the role played by female pupils in response to the school's maintenance of the sexual division of labour, in addition to the previous inclusion of women in his theory on the reproduction of workculture. Again, Apple identifies resistance in the pupils' behaviour and draws on the work of Angela McRobbie (1978) to substantiate his hypothesis. McRobbie's research reveals that female pupils and in particular, working-class females, place great emphasis within the social setting of the school on their personal development as feminine and sexually mature adults. McRobbie discovers that these girls have a realistic vision of their future that will consist of marriage, housework, childcare and low-paid work but while their excessive conformity to the traditional concepts of femininity may appear to be consistent with their prescribed sex-roles, this is in fact a manifestation of resistance. In fact, these pupils who invest time and effort in fashion, cosmetics and boyfriends are resisting the school's ideal of appropriate feminine characteristics such as passivity, compliance and neatness. From this evidence, Apple argues that the girls are temporarily escaping the harsh reality of their lives by immersing

themselves in the cult of romance. This gives the girls a certain level of status within the family and while their concept of femininity may contribute somewhat to the cultural restrictions that are placed on women, Apple concludes that it is, nevertheless, an expression of resistance against the institutional nature of marriage and the family.

A similar study which also provides a new perspective on the hidden curriculum by introducing resistance theory is the work of Paul Willis (1977). This work is pertinent to an understanding of the school's reproductive role and the contribution of the pupils themselves. In common with Apple's analysis, Willis' work also demonstrates that the pupils in school are aware of and resist attempts to conform to the hidden curriculum although ironically the influence of the peer-group works to produce the effect towards which the latent function of the educational system is orientated. Willis' work is based on ethnographic research undertaken amongst a group of working-class boys in a single-sex boys school, located in an industrial region of England. He found that in school the boys divided the pupils into two types. The working-class boys themselves were known as "the lads" while the other group were termed "ear'oles". The "ear'oles" were the obedient, studious boys who were committed to the official values of the school whereas "the lads" had rejected the school's emphasis on educational qualifications in favour of identification with the adult working-class male culture.

Willis found a correspondence between the behaviour of "the lads" and the behaviour of the workers on the shop-floor, in that the two groups expressed both their resistance to authority and the solidarity amongst themselves by "skiving off" whenever possible, developing techniques to overcome boredom and monotony and

sharing interest in "boozing" and sexual activity. Fundamentally, "the lads" saw a conceptual division between mental labour and manual labour, choosing the latter as the easier route to earning a living and enjoying leisure time. The consequence of this behaviour is ironic in that "the lads" themselves facilitate the recreation of the working-class by resisting the manifest function of the school, which is to equip individuals with educational qualifications. In effect, the oppositional behaviour of young working-class males goes further towards the reproduction of social class differences than the cultural messages that comprise the hidden curriculum.

Willis adopts the two concepts of penetration and limitation to explore the paradoxical and contradictory outcome of the lads' resistance. According to Willis, the lads have penetrated the reality of inequality that is associated with the capitalist ethics of individualism and competition. However, they have done so in an informal and disorganized manner and the absence of conscious decision renders organized political resistance unlikely. This informal, cultural response to the dominant class also has its limitations in that the lads conform to the labour requirements of the economic institution despite their rebellion against the educational institution.

While Willis' analysis of resistance theory draws our attention to the complexities of social reproduction, his work may be critisized for its failure to deal sufficiently with the simultaneous process of reproduction that maintains the sexual division of labour. Willis considers the role of women only from the perspective of the males who comprise his study group. According to the lads, there are two types of female, the first being the girlfriend or potential wife who is modeled on the mother figure and the second being the "easy"

women who can be objectified as a sexual body. As the lads justify their rejection of white-collar workers by classifying them as effeminate, ascribing an inferior status to women remains central to this conceptual division. Thus, in Willis' conclusion, working-class males sustain not only the traditional social class distinctions but also recreate traditional gender differences.

It would appear that Willis has adopted "the myth of female classlessness" which was mentioned in the introduction to the socialist feminist perspective. The implication of this viewpoint is that the development and form of gender differences are dependent upon the existence and type of social class differences. Admittedly, there is little divergence here from the traditional socialist interpretation but while one does not dispute the interconnectedness of social class and gender distinctions, it may be advanced that the reproduction of sex-roles is not only a consequence of social class reproduction but occurs independently, simultaneously and through the same process of 'conformity despite resistance' that characterizes the other.

In proposing this argument, one can look, as Apple has, at the conclusions drawn from McRobbie's (1978) research. It will be remembered that the girls in McRobbie's study expressed their resistance to the school's official ideology of femininity by incorporating excessive feminine behaviour into their school life. Apple understood this response to be an escape mechanism for the pupils and one which bestowed a certain degree of status on the girls in adult, family life. However, one could interpret this action in the same way as Willis interprets the behaviour of the lads. The girls' method of resistance is, in fact, that which will contribute more to the

reproduction of gender differences than either the overt or hidden curricula of the school. In conclusion, it is evident that the socialist feminist perspective can usefully adapt all of these theories on the hidden curriculum, the pupils resistance and, to use Willis' term, the extent of "self-damnation" involved in the act of rejection. In other words, to what extent do pupils perceive and resist the hidden messages of gender-differentiation that are transmitted in the process of education and if resistance exists, why then do limiting concepts of masculinity and femininity persist? While the work of Bowles and Gintis, Apple and Willis is not specifically addressed to the problem of sex-stereotyping, each is concerned with the social organization or the social relations of production that capitalism creates and in common with the social feminist perspective, asserts that the change at any level must originate within the mode of production. According to socialist feminism, the root of woman's subordination lies in patriarchy which is a by-product of capitalism so that the decline of one entails the decline of the other.

Throughout this chapter, attention has been focused on the predominant theoretical approaches to the problem of gender differences in the schooling process. The majority of these perspectives came under the general heading of feminism which was broadly defined as that which is concerned with women's rights on the grounds of equality between the sexes. Therefore, the three principal schools of thought that comprise the feminist perspective were reviewed in relation to educational theory. The purpose of this review was to provide a sociological foundation for the emergence of the hypotheses on which this study is based. However, before these hypotheses can be formulated, it will be useful to review some of the empirical research in this area so that the current range of

methodologies and data can set the context for the findings of this study and their interpretation.

CHAPTER THREE

THE SCHOOL AS AN AGENT OF SEX-ROLE SOCIALIZATION

As indicated in Chapter Two, the following review of empirical research on gender differences is divided into four principal areas of concern, some of which correspond directly to the schools of thought that were presented in the second chapter. The first area of concern to which sociologists of gender and education frequently address their work is the issue of subject take-up rates in schools. This concern has much in common with the liberal feminist stance in expressing the belief that gender equality will succeed equal opportunity in the educational system and is firmly rooted in the investigation of the overt or official curriculum of the school. Thus, the research in this area includes statistics on the subjects that are available in girls' and boys' schools, the numbers who take individual subjects, the factors that influence the pupils' decisions and the effects of particular choices. As research in this area has advanced, the study of gender differences in the official curriculum has expanded to include the development of the pupils' achievement orientation and the patterns of verbal interaction in the classroom. In the following review, this chapter will look at both Irish and British

research on the official curriculum.

The second area of research is that which focuses on the hidden curriculum in schools. This work has been influenced to a great extent by the conflict theories that underlie both the socialist and radical feminist perspective. The predominant concern in the analyses of the hidden curriculum is to reveal the hidden messages of the school that are instrumental in shaping gender identity. These have been found to include the role of sexually-differentiated discipline procedures, extra-curricular activities, rules relating to school uniforms and personal appearance and teachers' expectations of boys and girls. Again, the following review will incorporate relevant Irish research into the main body of available data on this topic.

Thirdly, an important aspect of research on gender differences in second-level schooling will be to discover the extent of the problem in different types of schools. This will involve looking at research that compares and contrasts single-sex schools and co-educational schools. A considerable amount of data has been compiled on this area in recent years as parents show increasing concern for the fate of their sons and daughters.

Finally, the fourth area of concern is the influence of the home background and the peer-group in shaping the gender differences that are carried over into school life. As seen in the development of resistance theory, it must be asked here if the attitudes and behaviour of the pupils themselves determine gender differences to a greater extent than the school and if so, whether the school

merely reflects the existing division or subsequently maintains and reinforces the sexual division of labour. Throughout the review, particular emphasis will be given to those who have contributed the most relevant and influential research on the topic, while secondary material of interest will be briefly included.

(i) THE OFFICIAL CURRICULUM

To date, the most comprehensive work on gender differences in Irish second-level schools is the 1983 ESRI study by Damian Hannan et al. and their additional paper on the subject in 1987. Focused primarily on subject take-up rates, this study reveals a number of patterns in the educational system that point to gender-differentiation. Hannan et al. begin their assessment of the problem by comparing participation rates for each sex and find that at both Intermediate and Leaving Certificate level, more girls than boys sit examinations. In 1980, the Intermediate Certificate candidates were divided into 24,500 males and 26,500 females, while Leaving Certificate figures for the same year indicate that only 16,000 males sat the examination in comparison to 20,600 females. Assuming equal participation rates within each subject, this would imply that there are slightly more girls than boys taking each subject. However, the true figures show the dramatic variation between the subjects taken by each sex as we can see from Tables 3.1 and 3.2.

Table 3.1 reveals that at Intermediate Certificate level, Higher Maths, Science and the technical subjects are predominantly male-dominated while Commerce, languages and 'artistic' subjects are taken disproportionately by females. Of the male-dominated subjects,

the male-to-female ratios in ascending order are as follows; Higher Maths (1.27); Science (1.52); Mechanical Drawing (160.07); Woodwork (428.01) and Metalwork (2846.89). Amongst the subjects taken disproportionately by females, the ratio of males-to-females in descending order are French (0.80); Spanish (0.73); Commerce (0.73); German (0.33) and Home Economics (0.01). The most extreme case of sex-differentiation can be seen in the take-up rates for Home Economics and Metalwork. Almost no boys take the former and almost no girls take the latter. However, it is interesting to note that the ratio of 2846.89 male-to-female candidates in Metalwork indicates a greater gap between the sexes than the 0.01 ratio of males-to-females in Home Economics.

At Leaving Certificate level, the findings of Hannan et al. (Table 3.2) reveal a similar, if not more extreme pattern than the Intermediate Certificate figures. Again, the science-orientated subjects are taken by many more males than females, with a greater ratio of males-to-females in Higher Maths (3.78) than there was at Intermediate Certificate level (1.27). The science course, having subdivided into Physics, Chemistry and Biology, we find that there are 8.26 males-to-females taking Physics and 2.84 males-to-females sitting Chemistry. A notable exception amongst the science subjects is Biology which is a female-dominated area with only 0.65 males to every female taking this subject. Other male-dominated subjects now include Applied Maths (29.30 males-to-females) and Economics (1.98), while Accounting and Business Organization, the descendants of Commerce, are finely divided between the sexes with slightly more boys than girls (a ratio of 1.03) taking the former and slightly less boys than girls taking the latter (0.87).

Table 3.1: Proportions of Boys and Girls taking Intermediate Certificate subjects and Their Ratio, 1979-1980

	(1) Boys	(2) Girls	(3) (1)/(2)
Higher Maths	.31	.24	1.27
Science (A)	.80	.52	1.52
Commerce	.49	.66	0.73
Mechanical Drawing	.45	.00	160.07
Woodwork	.37	.00	428.01
Metalwork	.21	.00	2846.89
French	.56	.71	0.80
German	.03	.10	0.33
Spanish	.04	.05	0.73
Home Economics	.00	.70	0.01
Art	.27	.47	0.57
Music (A)	.06	.20	0.29

Source: Department of Education, Statistical Report, 1979-80, pp. 56-57

Table 3.2: Proportions of Boys and Girls taking Leaving Certificate subjects and Their Ratio, 1979-1980

	(1) Boys	(2) Girls	(3) (1)/(2)
Higher Maths	.15	.04	3.78
Physics	.28	.03	8.26
Chemistry	.28	.10	2.84
Biology	.40	.62	0.65
Applied Maths	.04	.00	29.30
Accounting	.24	.23	1.03
Business Organization	.26	.30	0.87
Economics	.30	.15	1.98
Technical Drawing	.18	.00	219.74
Building Construction	.10	.00	982.97
Engineering Workshop	.09	.00	1824.21
French	.53	.69	0.76
German	.02	.06	0.40
Spanish	.03	.04	0.64
Home Economics (Gen.)	.00	.22	0.01
Home Economics (S&S)	.04	.37	0.12
Art	.12	.21	0.58
Music	.01	.04	0.19
History	.38	.34	1.11
Geography	.53	.43	1.21

Source: Department of Education, Statistical Report 1979-80, pp. 56,58,59.

The technical subjects appear at Leaving Certificate level as Technical Drawing, Building Construction and Engineering Workshop and as one would expect, show an even higher degree of differentiation between the sexes than their counterparts at Intermediate Certificate level. The first of these subjects is taken by 219.74 males to females, the second by 982.97 males-to-females and the last by a startling 1824.21 male-to-female candidates. Home economics divides into the general course and the Social and Scientific course with both courses claiming a much higher proportion of female candidates than male. The male-to-female ratio for the general course is 0.01 and 0.12 for the Social and Scientific course. Again, the gap between the sexes is wider in Engineering, the most male-dominated subject, than it is in either of the Home Economics courses which are the most female-dominated areas of study. Finally, in keeping with the pattern established in the junior cycle it is mainly girls again who sit the arts and language subjects at Leaving Certificate level.

One of the most important points about sex-differentiated subjects that Hannan et al. draw to our attention is the degree of variation between the three types of school available in Ireland. Tables 3.3 and 3.4 demonstrate the subject take-up rates in Secondary schools, Vocational schools and Community schools at Intermediate Certificate level and Leaving Certificate level respectively. To look firstly at Table 3.3, we find that more secondary school girls take Science than Vocational or Community school girls despite the fact that the gap between the sexes is wider in Secondary school Science than it is for that subject in Vocational or Community schools. Higher Maths claim a similar position with the majority of its female candidates studying this in Secondary schools although it retains its

Table 3.3: Proportions of Each Sex Taking Certain Subjects in the Junior Cycle, and Their Log-ratio, broken down by School Sector

	Secondary			Vocational			Community		
	Boys	Girls	Log Ratio	Boys	Girls	Log Ratio	Boys	Girls	Log Ratio
Higher Maths	.62	.55	0.11	.12	.15	-0.25	.30	.27	0.11
Science (A)	.92	.59	0.45	.50	.40	0.23	.60	.51	0.17
Commerce	.66	.64	0.02	.15	.92	-1.83	.41	.64	-0.45
Mech. Drawing	.30	.00	5.66	.97	.04	3.11	.78	.12	1.84
Woodwork	.25	.00	7.86	.91	.05	3.01	.57	.07	2.08
Metalwork	.04	.00	6.66	.82	.03	3.50	.45	.04	2.89
French	.79	.85	-0.08	.35	.66	-0.64	.51	.70	-0.32
German	.05	.11	-0.88	.01	.00	1.94	.04	.08	-0.57
Spanish	.06	.06	-0.09	.01	.01	-1.03	.02	.02	0.10
Home Eonomics	.01	.67	-4.70	.05	.96	-2.88	.07	.87	-2.53
Art	.32	.54	-0.53	.45	.54	-0.17	.36	.59	-0.49
Music	.15	.33	-0.82	.06	.09	-0.39	.21	.41	-0.67

Source: Department of Education, Statistical Reports, 1979-80, pp.45-52.

Table 3.4: Proportions of Each Sex Taking Certain Subjects in the Senior Cycle, and Their Log-ratio, broken down by School Sector

	Secondary			Vocational			Community		
	Boys	Girls	Log Ratio	Boys	Girls	Log Ratio	Boys	Girls	Log Ratio
Higher Maths	.30	.12	0.93	.09	.08	0.18	.19	.10	0.68
Physics	.30	.04	2.03	.16	.02	2.12	.25	.04	1.76
Chemistry	.33	.13	0.92	.10	.03	1.21	.20	.10	0.62
Biology	.39	.60	-0.42	.49	.62	-0.23	.35	.61	-0.57
Applied Maths	.04	.00	3.40	.02	.00	4.38	.03	.00	1.89
Accounting	.27	.22	0.21	.06	.41	-2.00	.15	.22	-0.36
Business Organisation	.27	.29	-0.07	.11	.40	-1.27	.22	.32	-0.36
Economics	.33	.15	0.79	.12	.22	-0.60	.18	.17	0.38
Tech. Drawing	.08	.00	4.33	.75	.00	5.14	.37	.02	3.15
Building Construction	.03	.00		.47	.00	5.75	.25	.00	6.02
Engineering Workshop	.01	.00		.52	.00	5.34	.23	.00	5.03
French	.56	.71	-0.23	.21	.60	-1.04	.37	.62	-0.51
German	.03	.06	-0.71	.01	.01	0.18	.03	.06	-0.60
Spanish	.03	.05	-0.49	.01	.02	-0.95	.02	.01	0.20
Home Eonomics (Gen.)	.01	.20	-3.32	.00	.41	-6.23	.01	.25	-3.22
Home Economics (S&S)	.01	.33	-3.80	.01	.32	-3.49	.04	.36	-2.29
Art	.11	.20	-0.65	.17	.24	-0.31	.15	.24	-0.45
Music	.02	.07	-1.31	.01	.02	-0.33	.01	.08	-2.23
History	.41	.36	0.12	.22	.26	-0.15	.35	.29	0.19
Geography	.54	.45	0.19	.33	.33	0.08	.52	.38	0.30

Source: Department of Education, Statistical Reports, 1979-80, pp. 45-52.

male-dominated status in all but Vocational schools. The technical subjects also reveal some interesting variations. Woodwork, Metalwork and Mechanical Drawing are most likely to be taken by females who attend Community schools and to a lesser extent by those who attend Vocational schools. However, female students of these subjects do not exist in Secondary schools.

Commerce, which has already been established as a subject with a greater proportion of female than male students, is actually taken by slightly more boys than girls in Secondary schools although its image as a 'girl's subject' is assured by the extent of sex-differentiation in Vocational schools even more than is the case in Community schools where the gap is already quite wide. A similar pattern emerges in relation to French while the other languages are also taken by slightly more females but generally have low take-up rates in all schools. Art is more a 'girl's subject' in Secondary schools than it is in other school types although approximately the same proportion of girls take the subject in all three types of school, while Music has roughly twice as many female students as males in all schools. Finally, Home Economics reveals a degree of sex-bias equal to that of the technical subjects although in favour of females. However, it is interesting to note that while girls are more likely to take this subject in Vocational and Community schools than in Secondary schools, the same applies to a small proportion of boys, with Community schools boasting the highest number of male candidates.

Table 3.4 indicates the comparison between school types at Leaving Certificate level and again we find that girls have a greater probability of taking Higher Maths, Applied Maths and the science

subjects in Secondary schools although the two mathematics courses are more male-dominated here than in Community or Vocational schools. Physics and Chemistry are most likely to be defined as 'boys' subjects' in Vocational schools and least likely in Community schools. Biology, the exception to the general trend in sex-related take-up rates for science, is taken by roughly the same proportion of girls in all school types but is most female-dominated in Community schools. In general then, sex-differences in the take-up of science subjects are highest in Vocational schools and lowest in Community schools.

Amongst Technical Drawing, Building Construction and Engineering Workshop, the first is taken by a tiny proportion of girls in Community schools and thereafter, the female take-up rates for technical subjects are non-existent. The vast majority of male students taking these subjects are in Vocational schools. Vocational schools also claim a higher number of girls studying Home Economics than the other school types and overall, girls are least likely to take either of the Home Economics courses in Secondary schools. Community school boys are more likely to take Home Economics than boys from other schools.

Taking a broad view of the figures, the traditional 'female areas' of languages and arts are taken by a greater proportion of females in Secondary schools than in the other two school types but the gap between the sexes in these subjects is generally greater in both Vocational and Community schools than it is in Secondary schools. Finally, the business-orientated subjects such as Accounting, Business Organization and Economics reveal dramatically contrasting sex-bias in the different schools. Economics is clearly a 'boy's subject'

in Secondary schools yet a 'girl's subject' in Vocational schools. A similar female status is ascribed to Accounting and Business Organization in Vocational schools and to a somewhat lesser extent in Community schools, while Secondary schools show very little sex-differences in the take-up rates of these two. On the basis of their findings, Hannan et al. conclude that, in general, a distinct pattern of sex-differentiation is evident in subject take-up at post primary level in Ireland. Science and the technical subjects are male-dominated while Biology, languages and arts are taken by a disproportionate number of females. However, the authors advise that both the nature and degree of sex-bias may differ from one school type to another.

Having established the problem as they see it, Hannan et al. then attempt to provide an explanation for the sex-differences in subject take-up rates. In doing so, the authors develop a model which attributes sex-differences to the combined effect of three factors, namely (a) Provision, (b) Allocation and (c) Choice. The first factor of provision refers obviously to whether or not a school provides certain subjects. For example, many single-sex girls' schools do not provide Physics or Applied Maths, while single-sex boys' schools rarely teach Home Economics. Similarly, some of the technical subjects such as Metalwork and Woodwork have a higher incidence of provision in Vocational and Community schools than in Secondary schools while second and third languages are more likely to be provided in the latter than in Community or Vocational schools.

Assuming that the factor of provision is unproblematic and all subjects are available on the school curriculum, the effects of the second factor must be investigated. Allocation refers to the

accessibility of the school subject to the individual pupil. For example, co-educational schools may allocate certain subjects on the basis of sex, so that gender differences at the junior level become even more exacerbated in the senior cycle when previous knowledge of an area may be a determining factor in the choice of Leaving Certificate subjects. A more subtle form of subject allocation in coeducational schools may also be detected in the practice of restrictive timetabling where a traditional 'girls' subject' is taught at the same time as a traditional 'boys' subject' forcing the students to align themselves with one or the other rather than holding simultaneous classes in two 'boy's subjects' and then in two 'girl's subjects'. Hannan et al. also ask if boys' schools are more likely than girls' schools to make male-dominated subjects compulsory and if the reverse is true for girls' schools.

Finally, where all subjects are completely available to the individual pupil the authors advise analysis of the pupil's choice. We are cautioned that the pupil's own choice may not be as objective as the term indicates since the way in which subjects are taught and the way in which they are received by the pupils can have a significant effect on the individual's options.

Using this model of provision, allocation and choice, Hannan et al. demonstrate in Table 3.5 the extent to which each of these factors affect Leaving Certificate pupils' take-up rates in seven subjects. According to these figures, the provision of science subjects including Physics, Chemistry and Higher Maths is greater in boys' schools than in girls', with the exception of Biology which has a higher incident of provision in girls' schools. However, the traditional 'girl's subjects'

Table 3.5: Provision, Allocation and Choice Factors in the Take-up of Seven Leaving Certificate Subjects

(Figures in Parentheses are Percentages of Total Sample Size)

	Categorisation as in Figure 5.1	*Higher Maths*				*Physics*				*Chemistry*			
		Boys		*Girls*		*Boys*		*Girls*		*Boys*		*Girls*	
Total Sample	—	1,684		1,943		1,684		1,943		1,684		1,943	
Excluded because subject not on curriculum	A	137.0	(8.1)	329.5	(17.0)	330.5	(19.6)	1,309.5	(67.4)	334.0	(19.8)	454.0	(23.4)
Excluded because subject not allocated to class	B	37.0	(2.2)	203.0	(10.4)	68.0	(4.0)	68.0	(3.5)	68.0	(4.0)	107.0	(5.5)
Excluded because subject not allocated to sex	C	0		0		0		0		0		0	
Excluded because failed to meet academic criteria	D	708.0	(42.0)	1,008.0	(51.9)	336.5	(20.0)	195.0	(10.0)	209.0	(12.4)	475.0	(24.4)
Pupils who must take the subject	E,F	20.0	(1.2)	0		48.0	(2.9)	0		143.0[1]	(8.5)	0	
Pupils who may choose the subject	G,H	782.0	(46.4)	402.0	(20.7)	901.0	(53.5)	370.5	(19.1)	930.0	(55.2)	907.0	(46.7)
Total:	—	1,684.0	(99.9)	1,943.0	(100.0)	1,684.0	(100.0)	1,943.0	(100.0)	1,684.0	(99.9)	1,943.0	(100.0)
Pupils choosing the subject	—	381.0	(22.6)	69.0	(3.6)	477.0	(28.3)	61.5	(3.2)	405.0	(24.0)	249.5	(12.8)
Total taking the subject	—	401.0	(23.8)	69.0	(3.6)	525.0	(31.2)	61.5	(3.2)	538.0	(31.9)	249.5	(12.8)

Table 3.5: Continued.

	Biology				*History*				*Technical Drawing*				*Home Economics (Soc. & Sci.)*			
	Boys		*Girls*		*Boys*		*Girls*		*Boys*		*Girls*		*Boys*		*Girls*	
Total Sample	1,684		1,943		1,684		1,943		1,684		1,943		1,684		1,943	
Excluded because subject not on curriculum	147.5	(8.8)	6.5	(0.3)	302.5	(18.0)	148.5	(7.6)	908.5	(53.9)	1,611.5	(82.9)	1,294.0	(76.8)	128.5	(6.6)
Excluded because subject not allocated to class	96.0	(5.7)	0		0		0		48.0	(2.9)	0		0		87.0	(4.5)
Excluded because subject not allocated to sex	22.0	(1.3)	0		0		0		0		105.0	(5.4)	49.0	(2.9)	0	
Excluded because failed to meet academic criteria	0		0		0		0		275.0	(16.3)	204.0	(10.5)	0		0	
Pupils who must take the subject	104.0[2]	(6.2)	258.0[3]	(13.3)	70.0[4]	(4.2)	31.0[5]	(1.6)	123.0[6]	(7.3)	0		0		71.0[7]	(3.7)
Pupils who may choose the subject	1,314.5	(78.1)	1,678.5	(86.4)	1,311.5	(77.9)	1,763.5	(90.8)	329.5	(19.6)	22.5	(1.2)	341.0	(20.2)	1,656.5	(85.3)
Total:	1,684.0	(100.1)	1,943.0	(100.0)	1,684.0	(100.1)	1,943.0	(100.0)	1,684.0	(100.0)	1,943.0	(100.0)	1,684.0	(99.9)	1,943.0	(100.1)
Pupils choosing the subject	653.0	(38.8)	932.5	(48.0)	493.5	(29.3)	589.0	(30.3)	185.5	(11.0)	2.0	(0.1)	22.0	(1.3)	737.0	(37.9)
Total taking the subject	765.0	(44.9)	1,181.5	(60.8)	540.5	(32.1)	615.0	(31.7)	295.5	(17.5)	2.0	(0.1)	22.0	(1.3)	804.0	(41.4)

The numbers of those who, formally, must take the subject, who do in fact take it are less than the numbers shown in row 6 of the table in all cases where the figure is given a superscript. The correct figures are: 1 — 133; 2 — 103; 3 — 249; 4 — 47; 5 — 26; 6 — 110; 7 — 67.

Source: Hannan and Breen, ESRI Paper No. 113, 1983, pp. 126-127

of Biology and Home Economics are more likely to be provided for both sexes than the male dominated Physics. The fact that 19.6% of males are excluded from Physics due to lack of provision on the curriculum in comparison to the 6.6% of females who are excluded from Home Economics for the same reason would seem to suggest that gender-based assumptions in policies of subject-provision are more likely to channel girls into traditional female areas than they are to channel boys into traditional male areas.

Sex bias is also evident in relation to subject allocation whether it be allocation on the basis of sex, class or academic criteria. The school's failure to allocate subjects to a class has an adverse effect on girls in Higher Maths (10.4% excluded) and Chemistry (5.5% excluded) while boys are adversely affected by the same procedure with Biology (5.7% excluded). Allocation of subjects on the basis of sex excludes a further 1.3% of males from Biology, 2.9% of males from Home Economics and 5.4% of girls from Technical Drawing. However, apart from the lack of provision and bias in allocation, the most common reason for girls exclusion from Technical Drawing, Chemistry and Higher Maths is the pupils failure to meet the academic requirements for the subject take-up at Leaving Certificate level. This may be attributed to lack of provision or failure to allocate subjects to girls at Intermediate Certificate level and ultimately gives boys a wider choice in the senior cycle.

Finally, Hannan et al.'s table indicate the rate of subject take-up where a subject is provided and allocated to the pupils as an option. Here the authors introduce the term 'true rate of choice' which refers to the number choosing a subject as a percentage of those who

may choose it. Table 3.6 extracts a subsample of the data from Table 3.5 and presents the boy/girl ratio for each subject chosen by the pupils themselves. Clearly, there are considerable sex differences in the take-up rates for each subject, with many more males than females choosing Technical Drawing (boy/girl ratio of 6.3); Physics (3.2); Higher Maths (2.8) and Chemistry (1.6). Females are more likely to choose Home Economics (boy/girl ratio of 0.1) and Biology (0.9). However, this apparently true rate of choice in the senior cycle may be determined by restrictions in provision and allocation at the junior level, as some Leaving Certificate subjects require previous knowledge of related Intermediate Certificate subjects. As a result, girls who have not had the opportunity to study science for the Intermediate Certificate are effectively deterred from taking a science subject for the Leaving Certificate while boys who were unable to take junior level Home Economics lacked the prerequisites for senior level Home Economics.

Having examined subject take-up rates according to provision, allocation and choice, one of the most useful aspects of Hannan et al.'s model is the ease with which it facilitates comparison between the determining factors. Hence, from the information already presented in Tables 3.5 and 3.6 and from the further calculation of boy/girl ratios presented in Table 3.7, it is evident that the sex-differences in the true rate of subject choice for the seven Leaving Certificate subjects analysed are greater than sex differences in provision or in the meeting of academic requirements. This finding would seem to imply that an increase in the provision and allocation of certain subjects would have relatively little effect in redressing the balance of the sexes in terms of subject take-up rates. In other words,

Table 3.6: Those Pupils Choosing the Subject as a Percentage of those who may choose it (i.e. "true rate of choice")

	Boys	Girls	Ratio Boys/Girls
Higher Maths	48.7	17.2	2.8
Physics	52.9	16.6	3.2
Chemistry	43.5	27.5	1.6
Biology	49.7	55.6	0.9
History	37.6	33.4	1.1
Technical Drawing	56.3	8.9	6.3
Home Economics	6.5	44.5	0.1

Source: Hannan et al. (1983), p.134

Table 3.7: Sex Differences in Provision, Academic Requirements and Choice (Ratio of Boys/Girls)

	Higher Maths	Physics	Chemistry	Biology	History	TD	Home Economics
Provision	1.11	2.47	1.05	0.92	0.88	2.70	0.25
Academic Requirements	1.86	2.14	1.28	----	----	6.26	----
True rate of subject choice	2.83	3.19	1.58	0.89	1.13	6.33	0.15

Source: Hannan et al. (1983), p. 136.

the reduction of sex differences in the subjects taken for the Leaving Certificate depends to a greater extent on a change in the pupils' choices than the policies aimed at ensuring the opportunity to choose freely.

The obvious question then is to ask how the pupils make their choices from the subjects that are actually open to them. Hannan et al. approach this question by focusing on the attitudinal and aspirational characteristics of boys and girls that may determine their subject preference. The four science subjects of Higher Maths, Physics, Chemistry and Biology were specifically selected for the analysis of candidates and a set of variables associated with the pupils' choice of subject was identified. These variables included the pupils' performance in the Intermediate Certificate, career aspirations, attitude to the subject, a set of socio-psychological variables, the influence of "significant others" and the pupil's social position. The initial findings revealed the variables that had a high score for both males and females. The three most influential factors in choosing a subject were, in order of descendence, the level of examination performance in the Intermediate Certificate, intentions to pursue third level education and the pupil's attitude towards the subject. Nevertheless, a number of other variables received different scores according to the sex of the pupil. In relation to Higher Maths, it was discovered that the coefficient for the variable which measures attitudes to combining work and childrearing was of crucial importance for boys but of no importance for girls. However, the teachers' expectations of the pupil had a significant effect on females, considerably reducing the probability of their choosing Higher Maths. In contrast, boys were unaffected by this variable. By way of

explanation, Hannan et al. suggest that girls may have a lower perception of their abilities when faced with a difficult subject such as Higher Maths and therefore need more teacher support than boys. On the other hand, boys anticipation of the traditional male sex-role increases their probability of choosing the subject. The authors suggest that female adult roles are less rigorously defined than male roles which would account for the unimportance of this variable in their choice.

Sex differences are also evident amongst the pupils who choose Biology. Girls who have already taken this subject at Intermediate Certificate level are positively influenced in their choice of Biology at Leaving Certificate while the same factor appears irrelevant to boys. Conversely, males who take Leaving Certificate Biology have a significant score on the variable that measures satisfaction with the subjects taken, indicating a higher level of dissatisfaction with their choice than occurs in females. With Physics, Hannan et al. found that the low levels of choice amongst girls may be due to direct or indirect discrimination against girls by schools or teachers, or alternatively, may be attributed to a variable excluded from the model. Finally, factors, that influence pupils in their choice of Chemistry appear to be similar for both sexes, which the authors attribute to the academic status of the subject, Chemistry being more abstract than Biology, but less abstract than Physics or Higher Maths.

In conclusion, Hannan et al. identify girls' dependence on teacher support as the principal sex difference in the true rate of subject choice. The authors propose that girls need teacher encouragement to overcome poor images of their performance

abilities and low self confidence which may have been inflicted by the cumulative negative responses of teachers in the first instance. In addition, the ethos of the school may be such that the achievement-orientation is not inculcated as strongly in girls as it is in boys. Since this factor depends on the behaviour of teachers and is thereby within the school's control, it is argued that the change may be realised through programs of intervention. At this point, Hannan et al. are approaching the realm of the hidden curriculum in order to explain the sex-differences in the official curriculum but the exploration is restricted to a number of brief pointers and suggestions. As will be seen, later Irish research which analyses the hidden curriculum in greater detail uses the findings presented in the 1983 ESRI report as a foundation for study. However, before attention is turned to further Irish research, it will be useful to review analyses of official curricula outside Ireland that may be comparable with the work of Hannan et al.

Peter Woods (1976) has also conducted research on the topic of subject choice in the senior cycle of second-level schooling. Woods' study was undertaken in a British Modern school over a considerable period of time, and consisted of interviews with the third year pupils, discussions with the teachers and questionnaires distributed to the parents. In developing a sociological model to explain his findings, Woods adopts the two central concepts of 'group perspectives' and 'social class'. As the latter is primarily concerned with the effects of the pupil's background and level of parental guidance and therefore more pertinent to a discussion of outside influences, this review which is presently concerned with the official curriculum will focus on the first concept of 'group perspectives'. According to Woods, this

term which was originally used by Becker, refers to the development of modes of thought and action by a group when the individual members are faced with the same problem. The process occurs in such a way as to make the emerging decisions appear natural and legitimate to the group. Thus, in the case of subject choice the group perspective refers to the way in which a class of pupils analyse their subject options.

Having questioned each pupil on the reasons for their choice, Woods identifies two principal factors which he divides into the affective (liking or disliking) factor and the utilitarian (career and ability) factor. The findings are presented by gender and form and are similar to Hannan et al.'s in that the affective factor appears to be more important to girls than boys. In other words, girls are more likely than boys to base their subject choices on their liking for a subject or more specifically, their dislike of other subjects. This factor, in turn, appears to be determined by the pupil's liking or disliking of particular teachers. Woods then proceeds to analyse the difference between the third year forms on the basis of social class but returns to gender differences again when interpreting the changes in the original subject choices following intervention by the teachers. Here it is discovered that 44% of all pupils had their subjects changed, with 60% of these cases involving changes from examination subjects to non-examination subjects. Interestingly, there were twice as many boys as girls included in the total number of pupils who were re-channeled.

One can suggest that this may be due to the fact that girls, with their lower levels of self-confidence and greater dependence on

the teachers' expectations, are less likely to aim beyond the range of their perceived abilities in their original subject choice. This being the case, Woods' findings are not inconsistent with the findings of Hannan et al. Woods concludes by stating that the subject choice scheme serves the school policy of selection and as such, the range of choice is an illusion. In reality, subjects are subdivided into groups that reflect occupational categories with examination subjects on one end of the scale and non-examination subjects on the other. The teachers, acting as choice mediators, effectively stream the pupils according to ability and exam potential by encouraging them to change their original choices. As a result the pupils' group perspective adapts to the teachers' definitions of failure and success so that simply extending the range of subject choice in schools can achieve little in terms of balanced take-up rates. In effect, Woods is implying that the official curriculum extends beyond subject options to include the pupils' achievement-orietation, as determined by the general aims of the school.

The official curriculum also includes the way in which the context of a subject is communicated to the pupils as Alison Kelly (1985) indicates in her study of Science lessons. Kelly's observations are based on research undertaken in ten coeducational schools in the Greater Manchester area as part of the Girls Into Science and Technology (GIST) project. In total, 2,000 pupils were involved in the attitude tests and observations of classes that constituted the research. The author begins with the assertion that Science is masculine and sets out to explain how this masculine image is reproduced by the school. Two principal mechanisms are readily identified in the curriculum packaging of Science and the nature of classroom

interactions. In reference to the first of these mechanisms, Kelly looks at science textbooks and finds that on average, males are addressed or illustrated as often as ten times more than females. In addition to these rare appearances, women are portrayed in a stereotypical fashion when they are included, so that sex-stereotypes are reinforced. The author cites examples of women in textbooks looking frightened, taking passive roles and doing 'silly' things. While the effects of textbook images might normally be associated with the operation of the hidden curriculum, Kelly observed the way in which the teachers carried over these gender differences into their teaching methods. A lesson on eclipses was demonstrated with the use of a football which inspired an opening conversation between the male teacher and the male pupils on a recent football game, leaving the girls in the class uninterested. Similarly, a male teacher encouraged his female students to wear protective laboratory gear in order to "stay beautiful". Kelly acknowledges the fact that the sexist nature of verbal interaction during science practicals can be attributed mainly to the pupils themselves but again, teachers are inclined to reinforce the passivity of girls and the active involvement of boys by asking more boys than girls to answer questions and by completing a good deal of the girls' practical work for them rather than trusting them to experiment to the same extent as boys. In this way, the teachers' perception of the pupils assist the reproduction of gender differences in school.

Kelly's findings are similar to those of Michelle Stanworth (1983) who found that pupils of both sexes unhesitatingly named boys as the recipients of the most teacher attention. In fact, in Stanworth's study, boys received two and a half times as much teacher attention as

girls even in classrooms where the female pupils outnumbered the males by a 2:1 ratio. According to Stanworth's respondents, boys are twice as likely to be asked questions by teachers, twice as likely to be regarded as conscientious, twice as likely to be the pupils with whom the teachers get on best, three times more likely to be praised by teachers and five times more likely to be the pupils to whom the teachers pay the most attention. In their assessment, the pupils are referring to teachers of both sexes and in the majority of cases, are referring to interactions initiated by the teacher.

As indicated in the analysis of subject choice, this aspect of the curriculum is within the control of the school and therefore amenable to change. However, patterns of verbal interaction in the classroom, the choice of teaching aids and the presentation of subjects should be the easiest elements of the formal curriculum from which to eliminate gender differences as each depends on the perceptions, attitudes and behaviour of individual teachers. In contrast, alteration of the true rates of subject choice depend on the type of changes in the school ethos that will effect the individual pupil's perception of his or her ability.

(ii) THE HIDDEN CURRICULUM

Following the format established in the previous section, this review of empirical research on the hidden curriculum will also begin with a study undertaken in Ireland. It will be recalled that Hannan et al. (1983) concluded their analysis of subject choice take-up rates by acknowledging the influence of the hidden curriculum as manifested in the school ethos and the extent to which the

achievement-orientation is inculcated in the pupils. The authors did not engage in further investigation of the hidden curriculum but their suggestions have formed the basis of Kathleen Lynch's (1987) analysis of the ethos of girls' schools. The purpose of Lynch's work is to demonstrate that the difference between the ethos of single-sex girls' schools and the ethos of single-sex boys' schools is not as obvious in the official curriculum as it is in the general organizational life of the school which constitutes the informal or hidden curriculum. Lynch's study is based on a sample of ninety second-level schools in the Republic of Ireland selected in 1981/1982 and consists of data derived from interviews with school principals along with information obtained from the school prospectuses, magazines and annual reports.

The analysis begins by comparing the formal curricula of girls' schools with those of boys' schools in order to test Hannan et al.'s suggestion that the former exhibit a much lower achievement ethos than the latter. Lynch's evidence reveals that this is far from being the case. In fact, Lynch finds that in many ways, academic achievement is a more pervasive norm in girls' schools than it is in boys' schools.

Firstly, in relation to frequency of school based assessment, girls' schools participating in the study were more likely than boys' schools to give school examinations once or twice a year to exam candidates and twice or three times a year to other classes. In addition, girls' schools were more likely than boys' to give their pupils assessment reports at the end of each term.

Secondly, with reference to continuous assessment, a higher proportion of girls' schools than boys' schools in Lynch's study operated this on a compulsory basis while those without any form of continuous assessment were predominantly boys' schools.

Thirdly, the public display of academic results was an expression of the school's work ethic in a number of girls' schools but conspicuously absent from the participating boys' schools.

Finally, Lynch found that pupils in girls' schools were more likely to receive prizes for their achievements than pupils in boys' schools and significantly were twice as likely to be involved in prize-giving ceremonies. Accordingly, Lynch asserts that girls' schools are slightly more competitive and attainment-orientated than boys schools' and indeed, this assertion is substantiated by the consistently high grade examination results produced by females. Nevertheless, girls remain concentrated in particular subject areas despite the encouraging achievement ethos of their schools and it is to this apparent contradiction that Lynch addresses the second and principal part of her study. Having established the absence of discrimination against girls in the school ethos that is transmitted in the formal curriculum, Lynch proposes that the extracurricular aspect of school life be identified as the mechanism by which traditional sex-roles are reinforced. Since this may incorporate a broad spectrum of everyday events, the research may be clarified by Lynch's definition which is as follows:

> "By extracurricular we mean all those formally organized school activities which are part of the

> school day but are not assessed by public examination. These include sports of all kinds, societies of special interest, religious activities and student welfare activities." (Lynch, 1987, p. 10)

The gender differences arising from sports and hobbies were determined by obtaining the percentage of pupils in both girls' schools and boys' schools who participated in at least fifty named activities including field sports, court games, artistic pursuits and religious groups. Statistically significant differences between the schools for each sex were revealed in that girls' schools favoured sports such as basketball, volleyball, netball and tennis while boys' schools' offered much more in the way of football, soccer, hurling and rugby. According to Lynch, the emphasis in girls schools' is on court-games which involve little physical contact so that girls may be socialized into non-aggressive roles. In contrast, boys' schools place a high value on physically aggressive field games which seem to be consistent with the aggressive nature of the achievement ethic in capitalist societies.

Girls' schools also differed considerably from boys' in terms of the school's religious climate, with the former offering the most amount of religion classes per week and being twice as likely as boys' schools to extend the maximum number of classes to the senior level pupils. In addition, Lynch found that 62% of girls' schools made attendance compulsory at religious ceremonies while this was the case in only 21% of boys' schools. Retreats and prayer groups were also found to be a more common feature of female education than of males' educational experience and interestingly, the principals of girls'

schools were almost twice as likely as boys' principals to insist on religious observation amongst their teaching staff and prospective employees.

Girls' expected obedience to religious values was also paralleled by their expected submission to rules of conduct and appearance. All of the female schools in Lynch's study insisted on the wearing of a school uniform at all times while only half of the male schools had a uniform. Pupils' personal development was another area included in the extracurricular activities of the school that revealed significant gender differences. 62% of girls' schools had a pastoral care programme with over a third of these allocating one class period a week for the course. In comparison, only 40% of boys' schools had a similar course and were much less likely to teach it on a regular basis. Finally, the principals of girls' schools spoke of values such as justice, sincerity and loyalty more frequently than the principals of boys' schools when questioned on their priorities for the socio-emotional development of their pupils. Lynch comes to the conclusion that girls' schools have two different value systems which may not always be complementary. On the one hand, it is clear that girls' schools are not deficient in terms of the achievement ethos and definitely encourage their pupils towards academic success but on the other hand, traditional sex-role concepts, with all of their inherent limitations for females, are conveyed through the hidden curriculum of everyday school activities. As is evident from the importance placed on religious and ethical instruction in girls' schools, females are invested with a highly developed sense of moral obligation which obviously determines the pattern of womens' perception and social interaction and the extent to which womens' personal development differs from

mens'. It is also obvious from the type of games, hobbies, rules and regulations found in girls' schools that females are still socialized according to the ideal of woman as a refined, polite and cooperative being.

Irish research on the hidden curriculum is supported by similar studies in Britain, one of which focuses specifically on gender-differentiated rules and regulations in schools. Lynn Davies' (1984) theories on pupil deviance and school discipline procedures are based on a two-year case study of a British Midlands comprehensive school with a predominantly working-class catchment area. Davies' research consisted of structured interviews, questionnaires, classroom observations, recorded conversations and informal discussions, with each of these methods being applied to both staff and pupils. While the first section of Davies' study investigates the extent to which deviance exists in the school and the common forms employed by males and females, it is with the second part of her study on the school treatment of deviance, that the present analysis of the hidden curriculum is concerned. Here Davies found that for offences such as lateness, incorrect uniform, bullying and smoking, boys were more likely to be dealt an immediate physical punishment such as caning, with little or no aftermath of continuous reprisals, while girls were more likely to be referred to senior staff with subsequent involvement of their parents. According to Davies, the different treatment for girls and boys has two important implications. The first is that teachers lack the common store of knowledge and values necessary to control female pupils so that the responsibility of dealing with deviant girls is passed on from one teacher to the next. Secondly, as Davies' explains in the following extract:

> "Another implication lies in the length of deviance processing: it may appear that boys are treated more severely because of corporal punishment, but the extended procedure of referrals upward through the hierarchy, or to the parents, may in fact mean a longer deviant career for girls". (Davies, 1984).

In outlining the possible theoretical explanations for the teachers' response to troublesome girls, Davies suggests that the staff may be incorporating widely accepted ideals of feminine behaviour into the ideology of the school and by extension, into the school's disciplinary procedures. As a result, deviant girls are perceived to be 'more deviant' than deviant boys as they have not only broken the rules of the school but have violated the boundaries of femininity. Since this type of teacher perception is based not on the official school policy but on the teacher's own socialization as an individual, the effects of the teacher's reaction on the self-concept of the deviant pupil can be truly identified as the operation of the hidden curriculum.

Finally, the type and amount of career guidance that is received in the schools, and the extent to which it defines sex-roles for girls and boys should be considered as elements of the hidden curriculum. In their 1975 study, Davies and Meighan investigated the factors, including career guidance, that could affect the self-concepts of fifth year girls in two urban comprehensive schools. The authors of this study found that in both schools, the career guidance teachers interpreted their own roles as non-interventionist providers of

information, opportunities and assistance. A wide range of literature was available and career guidance class periods were allocated to all of the pupils. However, Davies and Meighan also found that the pupils were divided on the basis of sex when guest speakers or career films were arranged so that girls and boys received the information that the teachers considered appropriate to their sex. Nevertheless, the researchers had the general impression that the pupils were not told what to do in career guidance classes which made it all the more surprising to discover that the careers teachers perceived the girls in their classes to be conformist and obedient pupils. The female pupils lacked high levels of aspiration and appeared to confine themselves, in their career preferences, to the traditional areas of womens' employment. While the teachers in the study were inclined to attribute girls' choices to the influence of the home, the peer-group and the local economy, Davies and Meighan argue that their findings demonstrate the need for positive intervention by career guidance teachers in encouraging girls to achieve their potential and persuading employees to extend equal opportunities to both sexes.

(iii) THE TYPE OF SCHOOL

In the first section of this review which dealt with gender differences in the official curriculum, the difference between single-sex and coeducational schools in relation to subject take-up rates was identified as an important consideration for the researcher. While the work of Hannon et al. (1983) in the Irish context acknowledged the importance of this comparison by differentiating between Secondary, Vocational and Community schools, there have been a number of studies outside of Ireland that have addressed

themselves specifically to the bearing of school type on gender differences in second-level education. One of these studies which analyses subject preference and choice in coeducational and single-sex secondary schools is the work of M. B. Ormerod (1975). The author of this work was particularly interested in examining the extent to which the preference and choice of subjects was affected by sex-stereotyping and the liking or disliking of teachers. A sample of 1,204 GCE O-level candidates (686 females, 518 males) from a sample of nineteen British schools participated in Ormerod's study. The schools included ten single-sex grammar schools, five coeducational grammar schools and four comprehensive schools and were distributed throughout four major socio-geographical regions. The pupils were requested to complete a subject preference grid which necessitated their indicating the compulsory or optional status of the subjects and whether they were taking or dropping the named subjects. Ormerod's initial interpretation of his results involved asserting the 'gender' of each school subject on the basis of its popularity with either sex, thereby identifying Chemistry, Geography, Mathematics, Physics, boys' games, boys' P.E., handicraft and boys' technical subjects as 'male subjects' and Art, Biology, English, French, History, Latin, Music, Religious Education, girls' games, girls' P.E. and housecraft as 'female subjects'. This division of subjects into the two genders laid the groundwork for the next stage of Ormerod's analysis which centered on the application of the polarization hypothesis to the findings. The concept of subject polarization according to the sex of those who chose them was adapted from the work of Dale (1972) who focused primarily on coeducational schools with the expectation of stronger sex-stereotyping here than in single-sex schools. Employing a similar approach to that of Dales', Ormerod hypothesized that in coeducational

school's girls would have a stronger preference for 'female subjects' than 'male subjects' if not a complete aversion for subjects of the opposite gender. By the same token, the reverse would be true of boys and indeed Ormerod's overall findings do not contradict his expectations. Boys' preference for 'male subjects' and girls' preference for 'female subjects' were statistically highly significant, while the polarization of subjects that were chosen proved significant for boys but not for girls.

A further analysis of the information reproduced in Table 3.8 revealed the correlations between subject preference, subject choice and teacher liking for males and females. Using partial correlation to keep the third variable constant, the first relationship to be studied was that of subject preference and teacher liking. Here Ormerod found that the highest correlation between the variables existed for boys in coeducational schools and the second highest for girls in single-sex schools. The degree of correlation between teacher liking and subject choice decreases dramatically for both sexes in comparison to the figures for the first relationship and is easily explained by the fact that the pupils were choosing their subjects without yet knowing the identity of their teachers.

Finally, the correlation between subject preference and subject choice was determined and it was here that some of the most interesting findings were uncovered in that girls from both single-sex and coeducational schools had realised their preferences to a much lesser extent than boys. Boys in coeducational schools were the most likely to be satisfied by the take-up of their preferences while girls in coeducational schools were the least likely of all respondents

Table 3.8: Inter-Relationships Between Subject Preference, Subject Choice and Teacher Liking

	Subject preference - teacher liking			Teacher liking - subject choice		Subject preference - subject choice	
	N	G	Range	G	Range	G	Range
Boys (Single-sex)	293	43	26(Ga) 61 (2F1)	09	-41 (F) 48 (T)	70	54 (F) 92 (C)
Boys (Co-educated)	225	56		11		73	51 (RE) 88 (Mu)
Girls (Single-sex)	371	47	31 (A) 51 (Hi)	10	-28 (B) 48 (F)	66	63 (L) 88 (RE)
Girls (Co-educated)	315	44		11		64	(46 Hi) 80 (2F1)

Notes: (1) G (decimal points omitted) = global gamma (Goodman and Kruskal, 1954. 1963) derived by consolidating tables for relationship in each subject into one grand table.

(2) Global G and coefficients quoted in 'range' for teacher-liking-subject choice and for subject preference-subject choice are partial coefficients with the third variable held constant.

(3) N = number in most common subjects

(4) Symbols for subjects as in Table 3 (Ormerod, 1975).

Source: M. B. Ormerod (1975), p. 264.

to pursue the subjects in which they were interested. At this stage, it is also evident from Ormerod's findings that the polarization hypothesis which held for subject preferences does not hold for subject choices. A number of subjects that have been classified as 'female' are taken predominantly by males and a higher proportion of girls than boys take some of the subjects that have been identified as 'male' subjects. Again, some of the 'female subjects' that lie at the extreme end of the gender spectrum in terms of preference are only marginally 'female' in terms of actual choice.

A number of possible explanations for the tendency towards polarization in coeducational schools are advanced, including Dale's understanding of the gain or loss of morale in one sex when they find that they are faring better or worse than the other sex being educated alongside them. Ormerod argues that while Dale's explanation may be adequate in the case of subjects that are at the extreme ends of the gender scale, it scarcely explains the polarization of subjects such as housecraft, girls' P.E. and boys technical subjects that are intended for the take-up by only one sex. Instead, Ormerod suggests that in coeducational schools, male and female pupils are expressing subject preferences and, where possible, subject take-up patterns that complement their perceived sex-role. Ormerod concludes that his findings demonstrate the disadvantage of coeducational schools in terms of the pupils' sex-stereotyped attitudes to subjects and the subsequent influence on their choice. Unfortunately, Ormerod confines his final discussion to coeducational schools alone but the indications are that sex-stereotyping in subject take-up rates is greater in coeducational schools than in single-sex schools.

A more recent study on the same theme has been undertaken by T. J. Harvey (1984) who employs a methodology similar to that used by Ormerod which facilitates a comparison of their findings. Harvey's sample consisted of 2,311 third year pupils drawn from thirteen comprehensive schools in the south-west of England. Seven of the schools were coeducational schools while the six single-sex schools divided equally between girls' schools and boys' schools. The pupils were required to answer a questionnaire which investigated the respondent's liking of a subject and his or her perception of the subject's importance. Harvey begins his analysis of the findings by recognizing the work of Ormerod (1975) in placing school subjects on a gender spectrum but finds that his own results differ from Ormerod's in several respects. Science subjects, games and P.E. retain their status as 'male subjects' in Harvey's findings but neither Chemistry nor the physical sciences are as extremely 'male' as Ormerod would contend. In fact, Harvey's study reveals that Chemistry is more popular with both sexes than Ormerod suggested and is replaced by Physics at the male end of the gender spectrum.

Another important contrast between the two studies is evident in the preference-rating for English. Harvey finds that the subject is very popular with boys and girls while Ormerod found it unpopular with males and placed it at the female end of the subject gender spectrum. Harvey then proceeds to assess the difference in subject preference between the two school types, assigning a mean position to each subject. Tables 3.9 and 3.10 illustrate the findings for boys' schools and girls' schools respectively. The first of these tables reveals the greater preference for Physics and Geography amongst coeducated boys than that expressed by boys in the single-sex

Table 3.9: Subject preferences of boys in the two types of school

Boys in mixed-schools	Mean	Boys in single-sex schools	Mean
Physics	5.4	English	5.0
Games/ P.E.	5.6	Games / P.E.	5.6
Geography	5.8	Chemistry	6.0
English	6.0	History	6.0
Mathematics	6.0	Mathematics	6.2
Craft	6.2	Art	6.4
Art	6.4	Biology	6.4
Chemistry	6.6	Geography	6.6
History	6.6	Physics	6.8
Physical Science	7.0	Craft	7.0
Biology	7.8	General Science	7.0
General Science	8.4	French	8.2
Home Economics	8.4	Physical Science	8.2
French	9.2	German	8.6
German	9.6	Drama	8.8
Drama	10.4	Religious Education	10.4
Religious Education	10.4	Music	10.6
Music	11.2	Home Economics	11.2

Source: T. J. Harvey (1984), p. 248

Table 3.10: Subject preferences of girls in the two types of school

Girls in mixed-schools	Mean	Girls in single-sex schools	Mean
English	5.0	English	5.4
Home Economics	5.6	Art	5.8
Biology	5.8	General Science	6.0
Art	6.4	Home Economics	6.0
Geography	6.6	Biology	6.4
History	6.8	Games / P.E.	6.4
Games / P.E.	7.0	Mathematics	6.4
Mathematics	7.0	French	6.6
French	7.6	Chemistry	7.0
Chemistry	7.8	Geography	7.0
Craft	8.0	History	7.2
Physical Science	8.2	Craft	7.8
German	8.4	German	7.8
Drama	9.2	Physics	8.4
Physics	9.6	Religious Education	9.2
Music	9.8	Drama	9.4
Religious Education	10.2	Music	11.2

Source: T. J. Harvey (1984), p. 249.

environment. In contrast, boys in single-sex schools have a higher preference for Chemistry, Biology and Maths than coeducated male pupils. In addition to the different status' of individual science subjects, modern languages appear to be much more popular in single-sex boys' schools than they are amongst boys in coeducational schools.

Turning to Table 3.10, it is evident that the science subjects are far less popular with girls in both school types than they are with boys in general. However, Physics, Chemistry and Maths are even less popular with girls in coeducational schools than they are in single-sex schools and the same seems to be true of modern languages. On the other hand, the traditional girls' subjects such as Home Economics, Crafts and Music are favoured by girls in coeducational schools. Harvey acknowledges that these findings support Ormerod's hypothesis that polarization of subject preference on the basis of sex is greater in coeducational than single-sex schools. It is also apparent from both of the studies that boys are more inclined towards the physical sciences if they attend coeducational schools while girls have a greater scientific orientation if they attend single-sex schools. This situation exists in spite of the fact that pupils of both sexes in both types of school express a high degree of agreement regarding the importance of these subjects. It may therefore be concluded from Harvey's research, that in relation to science, girls benefit most from the single-sex educational environment while boys derive greatest advantage from coeducational schooling.

At this stage in the comparison between coeducational and single-sex schooling, it must be pointed out that the two studies already reviewed have been concerned with the effects of the school-type on subject take-up patterns. While this is an important area of research, consideration must also be given to the effect of school type on the way in which subjects are taught. Rennie and Parkers' (1987) Australian research sets out to detect and account for gender differences in mixed-sex and single-sex groupings in science lessons with the aim of raising teacher awareness. The authors conducted their study amongst the senior pupils at primary school level but their findings have important implications for science classes at higher levels. Twenty classes were chosen to participate in the study and the twenty teachers were divided into two groups of ten, each containing five female and five male teachers. The first group of ten teachers was advised about the possibility of sexism in mixed-sex science lessons and was thereafter known as the 'Experimental Group'. The second group was tutored only in the skills required for teaching the content of the lesson and these teachers constituted the 'Control Group'. Each group was then instructed to give six lessons, each of approximately one hour's duration, on the topic of Electricity, during which the researchers would observe the classroom proceedings. The researchers were particularly interested in focusing on the nature of teacher-pupil interactions and the nature of the pupils' activities. The latter they divided into six categories which included 'watching or listening', 'reading or writing', 'manipulating equipment', 'planning or discussion', 'on-task behaviour' and 'off-task behaviour'. In effect, the active or passive nature of the pupils' activities was assessed.

Rennie and Parkers' results demonstrate that the pattern of time spent on each activity is similar for boys in both mixed-sex and single-sex groupings and for girls in single-sex groupings whether they were taught by the Experimental Group or the Control Group. However, girls in mixed-sex groupings taught by the Experimental Group spent slightly more time on passive activities than the boys, although both sexes spent an equal amount of time on active tasks. A dramatic difference was observed in the mixed-sex groups that were taught by the Control Group. Here, girls spent almost 25% of their time watching and listening while the same activity claimed only 6% of the boys' time. In addition, these girls spent 25% less of their time manipulating equipment than did boys.

Rennie and Parker also calculated the percentage of classtime spent in the manipulation of equipment by pupil-selected partnerships and teacher-selected partnerships, in mixed-sex and single-sex groupings. It was revealed that in the Control Group's classes, girls in mixed-sex groupings were disadvantaged by the teacher's selection to a greater extent than girls in single-sex groupings and to a much greater extent than boys in either kind of group. Pupils who chose their own partner fared a lot better in terms of time spent handling the experiments than pupils who had their partners chosen by the teacher, with those in the Experimental Group's classes faring the best of all in this respect. Finally, teacher-pupil interactions were analyzed for both single-sex and mixed-sex groupings and it was discovered that teachers generally initiate interaction with all-male groups while interactions with all-female groups were usually initiated by the pupils. In the Experimental Group's lessons, boys and girls in mixed-sex groupings

were treated equally by the teachers but the Control Group failed to maintain the same standards of equal treatment in these groupings. The observers noted cases of teachers instructing female pupils to ask the boys for help and observed girls' tendencies to wait for experimental equipment until the boys had completed their work. Rennie and Parker came to the conclusion that girls in mixed-sex groupings are missing out on vital "hands-on" experience when teachers are unaware of the possibility of sexism. This being the case, the authors propose that the obvious solution is to raise teachers' levels of awareness. The work of Rennie and Parker yields similar results to those of Ormerod and Harvey despite the fact that Rennie and Parker are studying a different effect of single-sex and coeducation than the other two authors. A consensus between the researchers emerges on the effects of coeducation on girls. Each of these three studies indicates that girls are disadvantaged by mixed-sex education and have a greater possibility of achieving their academic potential when educated in isolation from the opposite sex.

(iv) HOME AND PEER-GROUP

> "Now of course it must be recognized that a range of experiences outside school influence the hopes and expectations which boys and girls have of their futures. The prescriptions for happiness offered by teenage magazines and by films and television, and more critically the models provided by family and friends, play an important part in this process". (Stanworth, 1981, p. 13).

While a considerable body of work on adolescent gender roles has

accumulated in recent years, there has been a tendency in the sociology of gender and education to deal with sexual divisions in the home and in the school as two distinct categories of research. As a result, it is difficult to assess the degree of correlation between the gender differences that originate in the family and those that subsequently emerge from the process of schooling. In addition to this obvious limitation, there have been few attempts to apply existing theoretical studies to the findings that have been uncovered by empirical research, so that many researchers fail to place their analyses of school gender divisions in the broad social context of adult sex-roles. Conversely, theoretical studies such as those of McDonald (1980), Apple (1982) and Arnot (1983) that have been included in the review of relevant theory in Chapter Two, are restricted by the shortage of supporting evidence. However, the work of Paul Willis (1977) was useful in examining the relationship between the school and the workplace, just as the work of Alison Kelly et al. (1982) is useful in linking school/school-related activities with home and leisure activities.

The research of Kelly et al. was undertaken in a coeducational comprehensive school located in the inner suburbs of Manchester and was designed to obtain additional information for the GIST (Girls in Science and Technology) project which has already been carried out in a number of schools in that area. The parents of thirty-six first year pupils (comprising approximately 25% of the total intake for 1980) were selected for interview and questionnaires were distributed to the rest of the first years' parents. Subsequently, twenty-four interviews were completed and ninety-two questionnaires were returned. The social class background of the

pupils and parents was an important element of the study and consideration of this variable was facilitated by the balanced response of the working-class families (53%) and the middle-class families (47%). The principal aims of the investigation were to assess the parents' educational and occupational aspirations for their children and the type of role models that they presented to their boys and girls.

In relation to educational aspirations, the findings of Kelly et al. show that parents considered girls' and boys' education to be of equal importance, although parents were more likely to want their daughters to go on to third level education than their sons. The authors of the study suggest that this may reflect the sexual division of the labour market which offers apprenticeships and training schemes to male school-leavers but demands more academic qualifications of female job-seekers. However, the parents' high aspirations for their daughters seem to be undermined by the response to the statement: "It is more important for boys to get a good education than for girls". 20% of the parents agreed strongly, with the majority of these parents being parents of male children only. The respondents were also asked to rate the importance of specific school subjects for boys and girls and it was discovered that most subjects were accorded the same status for both sexes. Interestingly, the sciences were considered to be more important for both girls and boys than modern languages. The greatest degree of polarization occurred with Metalwork, Woodwork, Needlework and Cookery with the first two rating as more important for boys than for girls and the reverse being the case for the other two. Working-class parents were more inclined towards sex-stereotyping for these four subjects than middle-class parents.

With reference to the parents' occupational expectations for their children, a high degree of sex-stereotyping was evident. Careers including social work, hairdressing and nursing were considered to be the preserve of females while science-related careers such as engineering and draughtmanship were considered to be more suitable for males than for females. The parents were then asked to give reasons for the particular jobs that they would like for their children, whereupon it was revealed that "Good Prospects" and "Security" were the highest priorities for sons' careers but "Interesting Work" and "The Child's own Preference" were mentioned more frequently for girls. Thus the value that the parents place on a good education would seem to have a different meaning for girls than for boys. Boys are educated for serious, breadwinning jobs while girls are educated for their personal fulfillment or for lower-status jobs that will bring in a second income.

Kelly et al. also devised a five point scale entitled 'SEXIST' to assess the bearing of certain variables on the parents' perception of appropriate sex-roles. Three important results emerged from this section of the questionnaire, indicating that working-class parents held more traditional attitudes on gender differences than middle-class parents; families with employed mothers held more liberal attitudes than those with home-based mothers and parents who had only female children scored lower on the SEXIST scale than those who had only boys. As role models, the study showed parents to be extremely sex-typed. Fathers helped their children more with Maths while mothers were more inclined to assist with homework in English. The division of labour for household tasks substantiated this finding. Shopping, washing and mending clothes were listed as female chores

while car-maintenance, window-cleaning and putting out the refuse were assigned to males in the majority of households. The parents' behaviour in the home had an obvious effect on their children. 72% of girls regularly washed-up while only 29% of boys did the same and girls were also more likely to cook, clean the house and tidy their bedrooms than were boys. In addition, daughters devoted a greater proportion of their time to work in the home than did sons, with 17% of girls spending more than three hours a week on help in the home compared to only 3% of boys. Those young people who gave less than one hour a week to household tasks consisted of 49% of the boys and 33% of the girls. A similar pattern was repeated when the parents disclosed the amount of time that their sons and daughters spent on homework. Overall, girls allocated more time than boys to this work while 40% of boys and 35% of girls gave less than one hour to the task.

Finally, the parents were questioned on the leisure activities of their offspring which revealed that girls invested more time than boys in reading, and frequently indulged in traditionally female interests such as cooking and knitting. On the other hand, football, fishing and wargames were often mentioned by parents as their sons' favourite activities. Kelly et al. conclude that it is these everyday home-based enactments of sex-roles that have more effect on young people than parents' formal and occasional commitment to equality between the sexes. According to the authors, this may also apply to the school as the formal ideology of equality is contradicted by the sex-stereotyped expectations of the teachers. In this case, the sexual division of chores in the home is paralleled by gender-differentiated subject choice in school but the connection between the phenomena cannot be deemed straightforward. The authors of the study close their

discussion by suggesting that the pupils' expectations for their future occupations form the intersection between the two spheres of sex-stereotyped activity. One is reminded here of that which Willis (1977) termed "the extent of self-damnation" in the behaviour of the pupils.

CONCLUSION

This chapter and the previous chapter have been devoted to a review of theories and empirical research on gender differences in second-level schooling. In Chapter Two, a broad definition of feminism was established and the theoretical approaches to the problem were identified in accordance with feminist perspectives. The liberal feminist perspective included theories on subject take-up rates, teachers' expectations of pupils and the nature of teacher-pupil interactions. These theories were substantiated in this chapter by the research that has been conducted on the official curricula of schools in Ireland and in Britain. The work of Hannan et al. (1983) in the Irish context was particularly emphasized as the results of the present study may be compared to their findings on subject take-up patterns.

The radical feminist perspective included theories on patriarchal values in education, sex-bias in language and the portrayal of women in textbooks, all of which are beyond the scope of the present study but are nevertheless elements of gender differentiation in education and therefore part of the context in which to view the problem. The review of the socialist feminist perspective borrowed from the approaches employed by those who are concerned with social class and education in that reproduction

theories were applied to gender differences and education. It was contended in this thesis that Bowles and Gintis' 'correspondence principle' was as valid an explanation for the maintenance of sex-roles in schools as it was for the recreation of social roles. In this chapter which dealt with empirical studies, the research on the hidden curriculum of schools appeared to support the aforementioned theories as it was evident that schools attempted to reinforce traditional concepts of masculinity and femininity through the medium of rules, ethics, career-guidance and extracurricular activities.

The review of theoretical approaches also adapted the work of Apple (1982) and Willis (1977) on the pupils' resistance and 'conformity despite resistance' respectively. It was apparent from the absence of empirical data that these theories had not previously been applied to the reproduction of gender differences in schools and it is one of the objectives of this thesis to fill that gap. The next proportion of the review of empirical research was concerned with the extent to which sex-stereotyping exists in single-sex and coeducational schools. The available research findings in this area indicated that coeducation is the most beneficial form of education for boys but the least beneficial for girls. Subject choice is polarized by sex to a much greater extent in coeducational schools than in single-sex schools which would suggest that coeducated pupils are more aware than single-sex school pupils of the school's attempt to channel them into traditional, sex-stereotyped roles.

Finally, the review of literature assessed the bearing of the home, the parents and the pupils' leisure activities on the gender differences that manifest themselves in the school environment. It was suggested in this section of the review that the pupils aspirations for their own futures, as influenced by their home life, determined the gender differences that were subsequently evident in the school subject take-up rates. This thesis would not dispute the pupils' ability to confine themselves to stereotyped roles regardless of the school's contribution to the reinforcement or elimination of conventional sex-roles.

Having completed the review of theoretical and empirical studies, the present state of knowledge in this field and the limitations of current research studies are established. In the light of this review, the objectives of the thesis which were stated in Chapter One, may now be formulated as hypotheses.

HYPOTHESES

(1) It is hypothesized that the pupils will conform to sex-role stereotypes both in their behaviour, as expressed in their subject choices, and their attitudes, as revealed in their reasons for particular choices.

(2) It is further hypothesized that the gender differences in pupils' attitudes and behaviour cannot be attributed to the influence of the school alone as:

a) Pupils perceive the school's attempt to channel them into sex-stereotyped roles.

b) Coeducated pupils have a higher level of awareness in this respect than those in single-sex schools.

c) Pupils reject these pressures that they identify as school-based.

(3) It is therefore hypothesized that gender-differentiated behaviour in second level schooling is a consequence of the pupils' tendency to stereotype themselves. It is expected that this tendency is associated with the home and pressures generated within the peer-group, neither of which the pupils will perceive as readily as the 'hidden curriculum' of the school.

CHAPTER FOUR

METHODOLOGY OF THE RESEARCH

Quantitative research methods have been employed by those working in the field of school-based inequality in recent years both in Britain and Ireland.

However, much of the research which utilises quantitative measures is directed towards the discovery of overt inequality, such as educational opportunity according to socio-economic background (Greaney and Kellaghan, 1984), subject take-up rates according to gender and social class (M.B. Ormerod, 1975; Peter Woods, 1976; Hannan et al., 1983 and T.J. Harvey, 1984) and observable gender roles at home and in school (Alison Kelly, 1982).

Research which seeks to uncover the hidden curriculum has been largely confined to qualitative measures, as outlined by Linda Bain (1985) who sees a direct correlation between the adopted theoretical perspective and the mode of analysis employed. According to Bain, advocates of the critical theory of reproduction and transformation, for example, Paul Willis (1977) and Apple and Weis (1983) favour ethnographic and phenomenological research methodologies.

Recent research such as that undertaken by Katherine Clarricoats (1978), Michelle Stanworth (1983), Kessler et al. (1985) and the Irish-based research of Kathleen Lynch (1987) has been of the latter variety, involving detailed interviews with teachers and observations in the classroom. On the other hand, researchers of the official curricula in schools frequently adopt quantitative methodologies. Examples of research studies on gender differences that have been based on the information obtained from questionnaires include Alison Kelly et al.'s (1982) investigation of gender roles at home and in school; T. J. Harvey's (1984) study of subject preference and perception of subject importance and, in the Irish context, Hannan et al.'s (1983) paper on sex-differences in subject provision and student choice.

As the present study incorporates research into both the overt and the hidden curriculum, practical expediency dictated quantitative research in the form of a questionnaire as the most appropriate methodology. The hypotheses of this study which have been presented in the previous chapter clearly indicate the necessity of investigating both attitudes and behaviour, as one of the important aspects of the research will be the existence or absence of correlation between the two. The questionnaire is designed to elicit the required information on both of these variables.

It is the function of this chapter, therefore, to detail the methodology of the present study by discussing:

a) The sample and the selection procedure.

b) The research instrument and its construction.

c) The collation of data.

d) The format of the findings and the application of statistical analyses.

THE SAMPLE

County Kildare was chosen as the location of the research for a number of reasons. Firstly, the county offers a variety of second-level schools (including secondary schools, vocational schools and community schools, in close proximity) which would facilitate not only a comparison between boys' schools and girls' schools but an analysis of the bearing of school-type on gender differences. Secondly, it was anticipated that a sample selected from a number of schools throughout Co. Kildare would represent a balance of respondents from contrasting backgrounds, as some of the schools included in the survey would have a higher intake of pupils from sub(urban) areas while others would have a greater rural catchment area.

Finally, County Kildare was selected for practical purposes as the author was educated in this county and is familiar with the educational institutions therein.

The following six schools were selected for the study in County Kildare:

1) The Salesian College, Celbridge, which is a single-sex boys' school run by the Salesian Priests and Brothers with a total of 476 pupils registered for 1987-1988.

2) Scoil Iosa, Kilcock, a single-sex girls' school founded and managed by the Sisters of Mercy, with a total of 362 girls registered as pupils in 1987-88.

3) Scoil Mhuire, Athy, also a single-sex girls' school run by the Sisters of Mercy with a total enrolement of 454 pupils in 1987-88.

4) The Post-Primary School, Maynooth, a co-educational Vocational school run by the VEC, with 82 female pupils and 138 male pupils registered for 1987-1988.

5) Coláiste Ciaráin, Leixlip, which is a co-educational Community School, having in 1987-1988 a total of 408 female pupils and 481 male pupils.

6) Coláiste Lorcáin, Castledermot, also a co-educational Community School, with the total enrolement for the year 1987-1988 being 195 female pupils and 149 male pupils.

It was decided to select 5th years in each school as the sample, for three important reasons. Firstly, 5th years would be sufficiently integrated into the second-level system to be aware of overt gender differences, and secondly, 5th years would have already chosen their subjects for the Leaving Certificate. This second factor is important in that the pupils will have become familiar with

a) The factors which influence subject choice.
b) The role of the career guidance teacher.
c) The constraints exerted upon them in relation to career options.

Finally, the 5th year pupils would have an average age of 17 and should be sufficiently acquainted with adolescent peer-group value systems.

Due to the relatively small numbers involved and their accessibility, it was practical to incorporate the total membership of existing classes into the sample, rather than select individual pupils, and as a result, data was obtained from approximately two classes of 5th year pupils in each of the six schools, totalling 260 respondents. A minor problem was encountered in that the total respondents of Scoil Iosa, Kilcock, which is a single-sex girls' school, included five male respondents. This is due to the fact that five boys from the CBS, Kilcock were attending a class in Scoil Iosa at the time of the survey, as the subject was not available in their own school. It was decided to incorporate their response into the findings and to treat their replies as those of pupils in a single-sex school, as the extent of this exchange

between the schools is limited. Accordingly, this group is included in the total figure for male respondents in single-sex schools.

Table 4.1 delineates the sample; the schools from which they were drawn and the distribution of the sexes.

THE RESEARCH INSTRUMENT

The chosen research instrument was a detailed questionnaire (see Appendix) which was administered to the sample over a period of two weeks at the end of May and early June, 1988.

It had previously been ascertained that the pupils would need approximately fifteen minutes to complete the questionnaire and as this was the case, the principals and co-operating teachers in each school allocated a quarter of an hour at the beginning of a class to the survey. Thus, the conditions of administration were such that the pupils were supervised by the author and also by a teacher while completing the questions.

The advantages of this method were threefold. Firstly, the pupils did not engage in interaction with each other while writing their answers to the questionnaire, which served

a) to elicit the immediate personal response.

b) to guarantee the individual's anonimity.

TABLE 4.1 Distribution of Respondents by School and Gender

NAME AND LOCATION OF SCHOOL	SCHOOL TYPE	MALE RESPONDENTS	FEMALE RESPONDENTS	TOTAL NO. OF RESPONDENTS
Salesian College, Celbridge	Single-Sex Boys School	59		59
Scoil Iosa, Kilcock	Single-Sex Girls School		29	29
Scoil Mhuire, Athy	Single-Sex Girls School		29	29
Coláiste Lorcáin, Castledermot	Co-Ed. Community School	18	21	39
Coláiste Ciarán, Leixlip	Co-Ed. Community School	25	24	49
Post-Primary School, Maynooth	Co-Ed. VEC Post-Primary	21	34	55
TOTAL		123	137	260

Secondly, a high response rate was achieved. In fact, none of the pupils declined to participate in the survey. Thirdly, the method of administering the survey facilitated the return of completed questionnaires as the author collected them when all the pupils had finished writing.

The questionnaire was divided into the following five main areas of investigation:

1) **Background/Personal Information** - included questions on date of birth; number of siblings; residential area; parents' occupation.

2) **Subjects** - included results of Intermediate Certificate; Leaving Certificate subjects and level chosen; reasons for choosing subjects; perception of school type.

3) **Career Guidance** - included extent of career consideration; number of meetings with career guidance teacher.

4) **School Activities** - included sports played in school; frequency of lifeskills classes; attitudes to school rules.

5) **Home and Leisure Activities** - included questions on hobbies; reading material; relationships with the opposite sex; housework; attitudes to sex-roles.

The structure of the questions varied throughout the questionnaire and consideration was given to simplicity to ensure that the completion was an uncomplicated task for the pupils. Many of the direct questions were precoded, but where the individual was required to elaborate on their selected response, open-ended responses were invited.

In the final section of the questionnaire, a Likert Scale was employed to measure the pupils attitudes to sex-roles. This five-point scale contained twenty-six items, which included statements on subjects that are popularly associated with one sex; the leisure activities pursued by the sexes; the contribution of women and men to the economy, and the commonly perceived roles of parents in the home.

DATA COLLATION AND STATISTICAL ANALYSIS

When the completed questionnaires of all 260 respondents had been collected, the answers were coded and the data entered into a computer file. This data was analysed using the SPSS^{x} package and the initial outcome took the form of frequency distributions and pertinent statistics. Following a preliminary analysis of this first result, relevant crosstabulations were obtained, again accompanied by appropriate statistics.

SUMMARY

This chapter has presented the research methods employed in the present dissertation. The criteria for the selection of the sample, the construction of the questionnaire and the compilation of the data have been discussed. In addition, an account of the procedures pertinent to the analysis of the data has been introduced. A presentation of the findings with appropriate statistics follows in Chapter Five.

CHAPTER FIVE

THE RESEARCH FINDINGS

The presentation of data in this chapter attempts to fulfill two functions. The primary aim is to provide the information that has been obtained from the research and the secondary function is to provide the context for these findings. The latter will entail the comparison of the research results with the work of authors who have been included in the review of literature.

The chapter will be divided into four main sections, the first demonstrating the representative nature of the sample in the light of similar research, and each of the remaining sections dealing with the three hypotheses, respectively. In order to compile a complete picture of the results, much of the data will be presented in a straightforward manner, with comments on the extent to which the findings seem to support or disprove the hypotheses, while a more detailed analysis of the theoretical implications will be reserved until the concluding chapter.

THE REPRESENTATIVE NATURE OF THE SAMPLE

Table 5.1 illustrates the proportions of boys and girls in the sample who took each Intermediate Certificate subject and their ratio

Table 5.1 Proportions of Boys and Girls who took Intermediate Certificate subjects and Their Ratio.

SUBJECT	(1) Boys	(2) Girls	(3) (1)/(2)
Higher Maths	.528	.438	1.20
Lower Maths	.423	.555	0.76
Higher English	.569	.781	0.72
Lower English	.382	.212	1.80
Higher Irish	.317	.657	0.48
Lower Irish	.634	.321	1.97
History	.943	.978	0.96
Geography	.951	.978	0.97
Science	.902	.912	0.98
French	.804	.905	0.88
German	.041	.117	0.35
Latin	.008	.000	—
Art	.146	.306	0.47
Music	.032	.270	0.11
Home Economics	.008	.576	0.01
Commerce	.593	.810	0.73
Economics	.000	.007	—
Applied Maths	.008	.000	—
Metalwork	.463	.044	10.52
Woodwork	.268	.022	12.18
Mechanical Drawing	.699	.226	3.09

according to the present research and may be compared with Hannan et al.'s (1983) figures in Table 3.1 (Chapter 3). As we can see from Table 5.1, the take-up rates for the compulsory subjects of Maths, English and Irish are practically identical for both sexes, although there is a marked difference between the levels chosen by girls and boys in each subject. Both English and Irish claim a greater number of females than males as higher level candidates, while more boys than girls undertake higher level Maths. The 1.20 boy-girl ratio is very similar to Hannan et al.'s 1.27 ratio for this subject. However, the take-up rates for Science indicate almost equal participation of the sexes which would seem to imply that the importance of Science for both sexes has been emphasized by both schools and pupils since 1983.

With respect to languages, the ratios of boys to girls in French (0.88) and in German (0.35) are very similar to Hannan et al's 0.80 and 0.33 respectively; while their 1983 ratios for Art (0.57) and Music (0.29) are even lower (0.47 and 0.11 respectively) in the present study. Interestingly, this research reveals male-female ratios for Commerce (0.73) and Home Economics (0.01) which are identical to those of Hannan et al.'s and reinforces their image of Commerce as a female-dominated subject — a fact which may not be as immediately apparent as the case of Home Economics. Finally, the technical subjects including Mechanical Drawing, Metalwork and Woodwork are, in this study, predominantly 'male subjects' with boy-girl ratios of 3.09, 10.52 and 12.18 respectively. However, contrary to Hannan et al.'s research, a number of girls take each of these subjects, with a surprisingly large number (0.266 proportions) taking Mechanical Drawing. As Mechanical Drawing was not available in any of the girls'

secondary schools, this finding may be attributed to the fact that the coeducational schools in the survey not only provided Mechanical Drawing as an Intermediate Certificate subject but made it available, in practical terms, to both sexes so that girls could choose it as an option.

Table 5.2 indicates the position at Leaving Certificate level. Again, as expected, boys outnumber girls in Higher Level Maths (by a ratio of 1.63) while girls continue to dominate languages, with 0.788 proportions of female candidates taking French as opposed to 0.585 male candidates, thus giving a boy-girl ratio 0.74 — a figure which is very similar to Hannan et al.'s ratio of 0.76 (Table 3.2, Chapter 3). An even greater divide between the sexes exists with German, where more than twice as many girls (0.094) than boys (0.041) take the subject. Again, the male-female ratio of 0.43 which is revealed by this research is comparable to Hannan et al.'s ratio of 0.40. In addition, the image of languages as a female-dominated area is substantiated by the take-up rates for higher level English and Irish, where the male-female ratios remain almost identical to those of the Intermediate Certificate level. The figures for the female-dominated subjects such as Art (0.48), Music (0.18) and Biology (0.56) are all closely related to Hannan et al.'s ratios of 0.58, 0.19 and 0.65 respectively; while a male-female ratio for Home Economics was unobtainable in the present study, due to the complete absence of male candidates. Similarly, the ratios for the male-dominated technical subjects indicate a highly disproportionate number of males to females, as Hannan et al. would lead one to expect; although with the exception of Mechanical Engineering, a small number of girls took

Table 5.2 Proportions of Boys and Girls taking Leaving Certificate subjects and Their Ratio.

SUBJECT	(1) Boys	(2) Girls	(3) (1)/(2)
Higher Maths	.309	.189	1.63
Lower Maths	.536	.686	0.78
Higher English	.528	.708	0.74
Lower English	.317	.167	1.89
Higher Irish	.252	.525	0.48
Lower Irish	.569	.336	1.69
History	.211	.211	1.00
Geography	.406	.401	1.01
French	.585	.788	0.74
German	.041	.094	0.43
Art	.056	.116	0.48
Music	.008	.043	0.18
Home Economics	.000	.233	—
Biology	.357	.627	0.56
Chemistry	.130	.204	0.63
Physics	.406	.175	2.32
Applied Maths	.056	.000	—
Economics	.041	.094	0.43
Business Studies	.048	.175	0.27
Accounting	.373	.321	1.16
Technical Drawing	.324	.036	9.00
Mechanical Engineering	.177	.000	—
Woodwork/Construction	.056	.007	8.00

subjects from this category. It is interesting to consider the fact that the 'boys' subjects' feature a number of female candidates while the traditional 'girls' subject' of Home Economics remains exclusive to females.

The commerce subjects of Accounting and Business Organization show a higher degree of polarization between the sexes in this study than is the case in Hannan et al.'s work, with the former being taken by 1.16 boys to each girl and the latter by 0.27 males to females, as opposed to the ESRI researchers' ratios of 1.03 and 0.87 respectively. These figures would seem to suggest that this difference between the two surveys may be attributed to a greater number of females taking Business Organization, rather than less males taking Accounting, in the more recent survey. Finally, the take-up rates for the science subjects reveal a different pattern than that of the ESRI research. In the present study, a higher proportion of both males (0.406) and females (0.175) take Physics than the proportions indicated by Hannan at al., reducing those authors' boy-girl ratio of 8.26 to only 2.32. In addition, Chemistry now becomes something of a 'girls' subject' (with a boy-girl ratio of 0.63) comparable to Biology (with a ratio of 0.56). Applied Maths remains male-dominated throughout the two studies.

An analysis of the subject take-up rates, when broken down by school-type, also reveals that the findings are closely related to those of the ESRI researchers. Tables 5.3 and 5.4 indicate the subjects taken by the present sample according to school-type in the junior cycle and in the senior cycle. Comparing these to Hannan et al.'s

Table 5.3 Proportions of each sex taking certain subjects in the Junior Cycle and their Log Ratio broken down by School Sector

	SECONDARY			VOCATIONAL			COMMUNITY		
	Boys	Girls	Log Ratio	Boys	Girls	Log Ratio	Boys	Girls	Log Ratio
Higher Maths	.508	.275	0.61	.523	.529	-0.01	.558	.577	-0.03
Science	.830	.862	-0.03	.952	.970	-0.01	.976	.933	0.04
Commerce	.593	.931	-0.45	.952	.882	0.07	.418	.600	-0.36
Mech. Drawing	.627	.000	—	1.000	.764	0.26	.860	.111	2.04
Woodwork	.101	.000	—	.428	.029	2.69	.418	.444	-0.06
Metalwork	.338	.000	—	.571	.029	2.98	.627	.111	1.73
French	.644	.965	-0.40	1.000	1.000	—	.930	.755	0.20
German	.033	.000	—	.000	.058	—	.069	.311	-1.50
Home Economics	.000	.310	—	.000	.882	—	.023	.688	-3.39
Art	.220	.396	-0.58	.047	.176	-1.32	.093	.288	-1.13
Music	.016	.327	-3.01	.047	.029	0.48	.044	.377	-2.10

Table 5.4 Proportions of each sex taking certain subjects in the Senior Cycle and their Log Ratio broken down by School Sector

	SECONDARY			VOCATIONAL			COMMUNITY		
	Boys	Girls	Log Ratio	Boys	Girls	Log Ratio	Boys	Girls	Log Ratio
Higher Maths	.254	.155	0.49	.428	.323	0.28	.325	.133	0.89
Physics	.423	.137	1.12	.523	.294	0.57	.325	.133	0.89
Chemistry	.677	.120	1.73	.333	.205	0.48	.116	.311	-0.98
Biology	.322	.620	-0.65	.380	.735	-0.65	.395	.555	-0.34
Applied Maths	.101	.000	—	.000	.000	—	.023	.000	—
Accounting	.440	.293	0.40	.285	.470	-0.50	.325	.244	0.28
Bus. Organization	.000	.120	—	.000	.000	—	.139	.377	-0.99
Economics	.000	.103	—	.000	.000	—	.116	.155	-0.28
Tech. Drawing	.237	.000	—	.285	.117	0.89	.465	.022	3.05
Woodwork	.338	.172	0.67	.000	.000	—	.116	.000	—
Mech. Engineering	.677	.000	—	.190	.000	—	.325	.000	—
French	.542	.724	-0.28	.857	.970	-0.12	.511	.733	-0.36
German	.338	.000	—	.000	.000	—	.069	.288	-1.42
Home Economics	.000	.241	—	.000	.205	—	.000	.244	—
Art	.847	.103	2.10	.000	.882	—	.046	.155	-1.21
Music	.000	.517	—	.000	.000	—	.023	.066	-1.05
History	.203	.241	-0.17	.333	.176	0.63	.162	.200	-0.21
Geography	.559	.310	0.58	.476	.647	-0.30	.162	.333	-0.72

findings (Tables 3.3 and 3.4, Chapter 3), it can be seen that the technical subjects retain their male-dominated status across the spectrum of school-types in the junior cycle, although this study suggests that a higher proportion of girls than indicated by Hannan et al. take Mechanical Drawing in vocational schools and Woodwork in community Schools. Both Higher Maths and Science are taken by more girls than boys in two out of three school types, despite the fact that Hannan et al. found this to be the case with only Higher Maths in vocational schools. The findings for the two extremely sex-typed subjects of Metalwork and Home Economics are similar in both studies while the commonly female-dominated areas of French and Music are, according to this research, taken by more boys than girls in community schools and vocational schools, respectively.

In the senior cycle, the boy-girl ratios show an even higher degree of similarity to Hannan et al.'s findings than the figures for the junior cycle. Higher Maths and Physics are taken by a substantially higher proportion of boys than girls in all school types while the reverse is the case for Biology. Chemistry, however, is more female-dominated in community schools, contrary to expectations founded on the earlier research. The only other departure from Hannan et al.'s findings in the senior cycle is the apparently higher ratio of males to females taking Art in secondary schools. The technical subjects remain practically exclusive to males in all three types of school as does Home Economics to females. Thus, it may be concluded from the comparison of Tables 5.1 to 5.4 with Tables 3.1 to 3.4 that the findings of the study are not markedly different from those reported in the 1983 ESRI paper. Considering the difference in the size

of the two samples, the similarity of the findings prompt two suggestions. The first suggestion is that subject take-up rates follow a clearly-defined pattern in Irish second-level schooling and the second is that the small sample used in the present research is, nonetheless, representative of a greater population.

THE TYPE AND EXTENT OF GENDER-DIFFERENTIATION IN SCHOOLS

The preceding section of this chapter has delineated the gender differences in subject take-up rates in both the junior and senior cycle of second-level schooling. Table 5.5 now presents the subjects with the highest degree of sex-differentiation in take-up rates, at Intermediate Certificate Level. The junior cycle was selected for this particular illustration so that the subjects taken by the pupils could be analysed in accordance with their examination results. In the case of male-dominated subjects, the boy-girl ratio is expressed; while the girl-boy ratio is stated in reference to the female-dominated subjects.

It is immediately apparent that Home Economics (with a girl-boy ratio of 72.0) is the most sex-typed subject and is greater than the boy-girl ratio of 12.18 for Woodwork by a factor of almost six. It may therefore be inferred that the traditionally female-dominated subject is more a 'girls' subject' than the male-dominated subject is a 'boys' subject'. The boy-girl ratio for Metalwork (10.52) also shows a predominance of males, comparable with the figure for Woodwork,

Table 5.5 Boy/Girl and Girl/Boy ratios for subjects with the highest degree of sex-differentiation in take-up rates at Intermediate Certificate level.

Subjects	Boy/Girl Ratio	Girl/Boy Ratio
Home Economics	—	72.0
Woodwork	12.18	—
Metalwork	10.52	—
Music	—	8.43
Mechanical Drawing	3.09	—
German	—	2.85
Art	—	2.09
Commerce	—	1.36
Higher Maths	1.20	—

while Music (with a girl-boy ratio of 8.43) is clearly a more female-dominated subject than Art, despite the greater proportion of both sexes taking the latter (see Table 5.1). The ratios for the remaining subjects do not indicate quite as dramatic a variation between the sexes as the aforementioned subjects but nevertheless serve to complete the picture of those that constitute 'girls' subjects' and those which may be termed 'boys' subjects'. The table does not offer any explanation as to why these gender differences exist although it is worth noting that only three of the most sex-typed subjects (Higher Maths, Commerce and Art) were provided in all six of the schools in the survey. Music was available in all but one school, the exception being one of the girls' secondary schools, while Home Economics was available in two single-sex girls' schools and all three of the coeducational schools. Both German and Woodwork were available in the boys' secondary school, the VEC post-primary school and one of the community schools; while Metalwork and Mechanical Drawing were available in all but the two girls' single-sex schools.

However, while taking account of the variation between the schools in terms of subject provision, and allowing for the possibility of sex-stereotyped subject allocation in coeducational schools, the fact remains that Home Economics, even if allocated only to females in the schools where the subject is provided, is available to approximately 137 girls, while Metalwork, if allocated only to males, is open to 123 boys. Consequently, if one is to explain the extent of variation between the boy-girl ratios for these two subjects in terms of school-imposed factors, one would have to suggest that Home Economics is unreservedly available to practically every female in the survey and

and almost completely unavailable to males; while Metalwork is either restricted to a small proportion of males in the schools where it is available or is more available to females than is Home Economics to males. An alternative explanation is that the pupils themselves not only choose traditional subjects according to their sex, but again, depending on the sex of the pupil, had reason to choose the sex-typed subjects in greater or lesser proportions. An analysis of the pupils' examination performances may provide an indication of the factors which influenced the Intermediate Certificate candidates' selection of subjects.

Table 5.6 illustrates the arithmetic mean of grades attained by pupils at Intermediate Certificate level in the compulsory subjects that were taken at higher level, while Table 5.7 presents the same information for pupils who took the lower level option in these subjects. The arithmetic mean of grades in subjects that were chosen most frequently by both sexes is outlined in Table 5.8. In order to determine the average grades per subject, the grades were scored in accordance with the following: A=5, B=4, C=3, D=2 and Fail=1 from which an arithmetic mean was calculated. For the purpose of illustration, the arithmetic means were reconverted into grades.

A comparison of Tables 5.6 and 5.7 indicates that boys achieve higher results than girls in Higher Maths but girls obtain better results in both Higher level English and Higher level Irish. Similarly, girls who take the pass papers in the compulsory subjects attain higher grades than boys who take the lower level option, particularly in the case of Irish. Interestingly, Table 5.8 also reveals

Table 5.6 Arithmetic mean of grades attained by pupils at Intermediate Certificate level in compulsory subjects (at higher level).

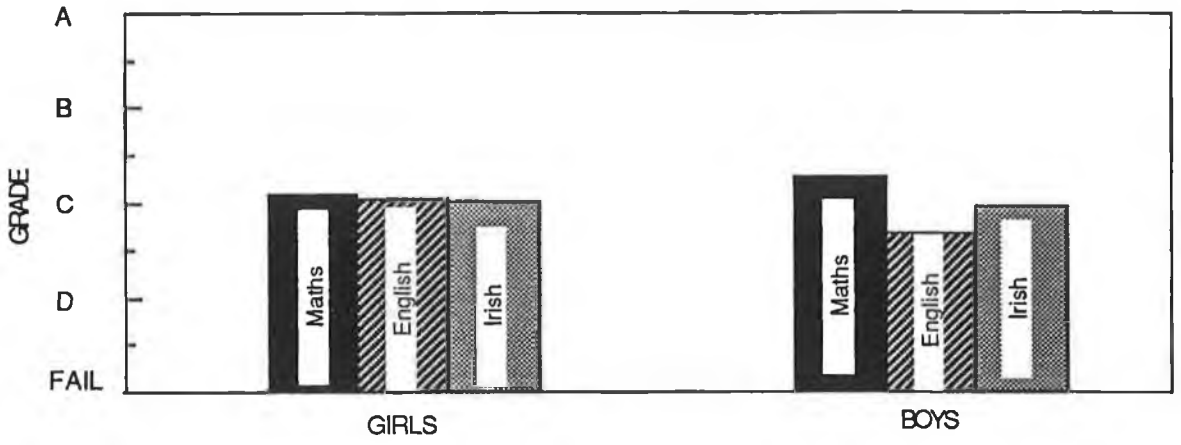


Table 5.7 Arithmetic mean of grades attained by pupils at Intermediate Certificate level in compulsory subjects(at lower level).

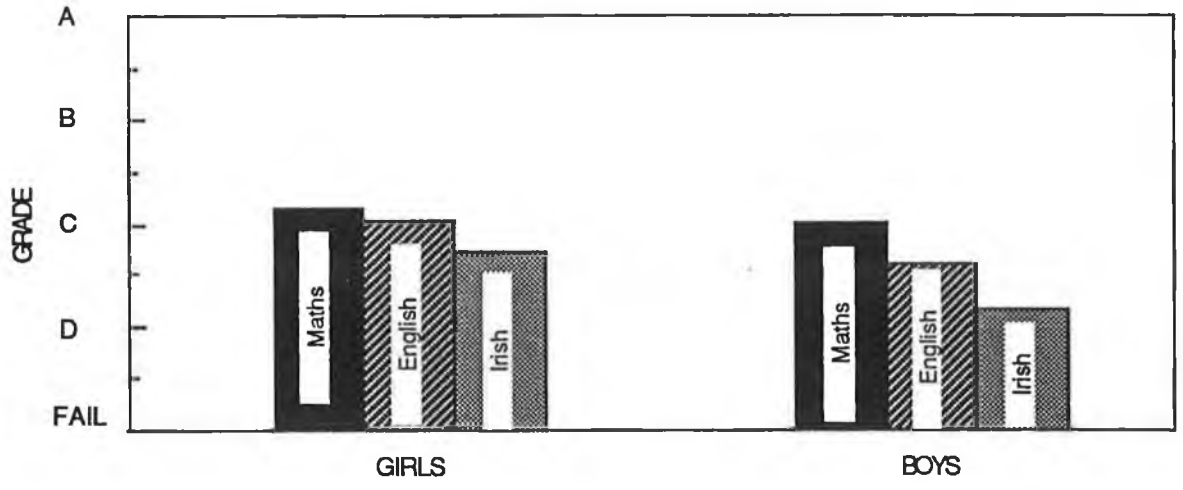
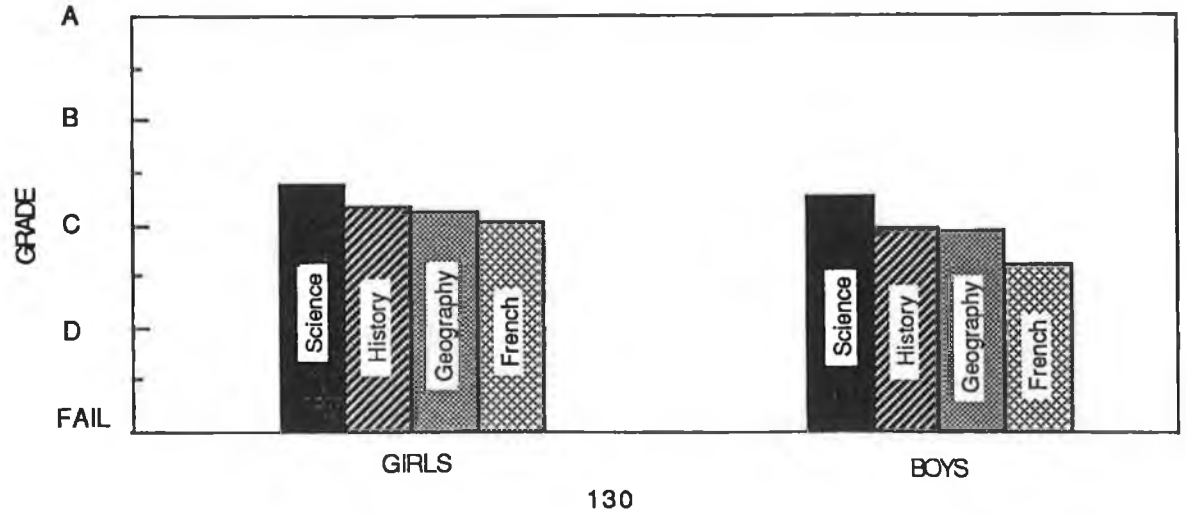


Table 5.8 Arithmetic mean of grades attained by pupils at Intermediate Certificate level in subjects chosen most frequently by both sexes.



the higher performance level of girls in all four of the subjects which are most popular with both males and females. The mean grade for girls who took Science is above C+, while for boys the Science grade is below C+. Both History and Geography indicate slightly higher attainment levels for girls but a noticable variation occurs again in the case of French, with boys' results clearly below a C grade and girls' results clearly above C. Overall, these three tables convey the impression that in the top seven subjects for both sexes, with the exception of Higher Maths, females are higher achievers than males.

Turning now to Table 5.9a, the mean of grades attained by girls at Intermediate Certificate level is presented for the subjects taken predominantly by females (see Table 5.5). German, Commerce and Home Economics are all above C+ while Art and Music are slightly below. These grades contrast considerably with the grades of boys in the subjects taken predominantly by males (Table 5.9b). Here, Mechanical Drawing and Metalwork are only slightly above the C grade while Woodwork is below C. Consequently, one may infer from these tables that girls perform better in 'girls' subjects' than boys do in 'boys' subjects'. Taking the previous tables (5.6 to 5.8) into account also, it can be seen that in fact, girls achieve higher grades than boys in almost every subject irrespective of sex-differentiated selection. The finding has a number of implications for the analysis of sex-stereotyping in subject choice. On one hand, it would seem as if girls are better pupils than boys at Intermediate Certificate level but this being the case, why do girls confine themselves to traditional 'girls' subjects' rather than apply their ability to a greater range of subjects? On the other hand, there is the possibility that girls only

Table 5.9a Arithmetic mean of grades attained by Girls at Intermediate Certificate level in subjects taken predominantly by females.

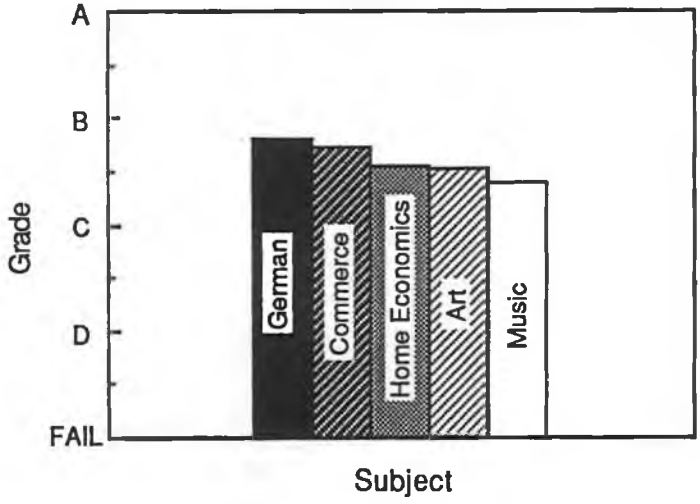
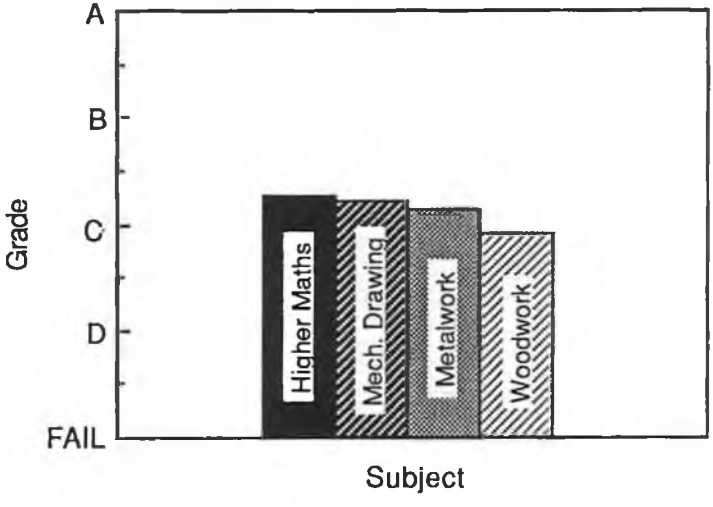


Table 5.9b Arithmetic mean of grades attained by Boys at Intermediate Certificate level in subjects taken predominantly by males.



attain higher grades as a result of their chosen subjects. Hannan et al. have suggested that girls are dependent on teacher-encouragement to overcome poor images of their performance abilities and low self-confidence. Thus, in the case of the female-dominated subjects in the present findings, it may be that girls are encouraged by their teachers to take subjects such as Home Economics, Art and Music and consequently, have enough confidence in the teachers' support to fulfill their academic potential within this subject-range. In contrast, boys may chose the traditional 'boys' subjects' without reference to the teachers' guidance (and with, perhaps, factors such as career choice in mind) and subsequently are not as strongly influenced as girls by the teachers' involvement with their academic progress. It is possible that this explanation may also account for the fact that female-male ratios are higher for 'girls' subjects' than are male-female ratios for 'boys' subjects'. In short, the suggestion is that girls are not only more receptive to guidance from the teachers but have, as a result of this reliance on teachers, a history of female success in 'girls' subjects' to support their take-up of traditional subjects.

At Leaving Certificate level, as previously demonstrated in Table 5.2, similar gender differences exist in the take-up of traditional sex-typed subjects and their senior-cycle equivalent. In order to assess the extent to which the sex-stereotyping of subjects is a reflection of the pupils' own choice at this level, the respondents were asked to name their current favourite subject. As the pupils participated in the survey at the end of their first year in the senior cycle when an even greater level of subject choice exists than in the junior cycle, it was

considered that the majority of the pupils' favourite subjects would be those that were actively chosen rather than those that were taken merely to make up the full complement of six or seven Leaving Certificate subjects.

Table 5.10 presents the findings of this investigation and indicates that the majority of sex-stereotyped subjects are amongst the favourites of the associated sex, although the degree of popularity varies between the subjects. Art is indeed a subject that is more attractive to females than to males with 9.2% of girls claiming it as their favourite in comparison to only 2.7% of boys. Accounting, which is one of the Leaving Certificate equivalents to Commerce, is popular with females (8.4%) but is also surprisingly popular with males (7.1%) in the light of Hannan et al.'s findings. The other 'girls' subject' of Home Economics is named by 4.6% of females but not mentioned at all by males. This would seem to indicate the influence of the schools' subject allocation rather than the pupils' unrestricted choice. Nevertheless, the female-dominated subjects seem to be reasonably popular with girls but in contrast, the male-dominated subjects are highly popular with boys. Technical Drawing is named as a favourite of 16.1% of males, while Maths follows closely with 14.3% of respondents. Mechanical Engineering, the Leaving Certificate equivalent to Metalwork, is mentioned by 8.9% of males and takes third place in the list of boys' favourite subjects. Woodwork has a very low placing but this may be explained by the fact that very few schools provide this subject in the senior cycle.

Table 5.10 Subjects named as favourite subjects by boys and girls in the senior cycle.

FAVOURITE SUBJECT	Boys		Girls	
	N	% of Total Resp. (N = 112)	N	% of Total Resp. (N = 131)
English	8	7.1	18	13.7
Biology	5	4.5	17	13.0
French	5	4.5	14	10.7
Art	3	2.7	12	9.2
History	9	8.0	11	8.4
Accounting	8	7.1	11	8.4
Geography	10	8.9	9	6.9
Maths	16	14.3	8	6.1
Irish	5	4.5	7	5.3
Physics	6	5.4	7	5.3
Home Economics	—	—	6	4.6
German	1	0.9	3	2.3
Chemistry	1	0.9	3	2.3
Technical Drawing	18	16.1	2	1.5
Mechanical Drawing	10	8.9	—	—
Woodwork	2	1.8	—	—
Others	5	4.4	3	2.3
TOTAL	112	100	131	100

In order to examine the variation between schools on this question and the extent to which the factors of provision and allocation apply to the pupils' answers, Table 5.11 provides an analysis of favourite subjects according to school type. Here, it may be seen that Art is more favoured by females in secondary schools than by females in community or vocational schools. Home Economics is more popular with girls in vocational schools and German is mentioned only by those in community schools. In reference to the male-dominated subjects, Technical Drawing is favoured most by males in community schools, closely followed by males in vocational schools, and the same pattern applies to Mechanical Engineering. Maths is preferred by boys in vocational schools where it is not mentioned at all by girls but conversely, Maths is more popular with girls than boys in community schools. Significantly, Home Economics is not named as a favourite subject by boys in any school nor Mechanical Engineering by any girls which tends to support the observation that the selection of these subjects is influenced by the level of subject provision or, in the case of coeducational schools, the allocation of the subject. In general, however, it appears that the boys' and girls' favourite subjects show a higher degree of sex-stereotyping in coeducational schools than in single-sex schools which is in accordance with the 1975 findings of Ormerod (see Chapter 3, section iii).

We may conclude from these findings that the subjects that are traditionally sex-stereotyped are, in many cases, subjects that are popular in each case with the associated sex. In addition, the fact that 'boys' subjects' are more popular with males than 'girls' subjects' are with females further substantiates the argument that boys are less

Table 5.11 Favourite subjects of boys and girls broken down by school sector.

FAVOURITE SUBJECT	SECONDARY SCHOOLS		VOCATIONAL SCHOOLS		COMMUNITY SCHOOLS	
	Boys (N=50) %	Girls (N=54)	Boys (N=21) %	Girls (N=34)	Boys (N=41) %	Girls (N=43)
English	12.0	18.5	—	8.8	4.9	11.6
Irish	4.0	5.6	4.8	5.9	4.9	4.7
Maths	18.0	3.7	19.0	—	7.3	14.0
French	4.0	9.3	—	17.6	7.3	7.0
German	—	—	—	—	2.4	7.0
History	8.0	13.0	9.5	8.8	7.3	2.3
Geography	10.0	5.6	14.3	11.8	4.9	4.7
Art	6.0	11.1	—	5.9	—	9.3
Home Economics	—	3.7	—	5.9	—	4.7
Accounting	12.0	11.1	4.8	2.9	2.4	9.3
Physics	2.0	5.6	14.3	5.9	4.9	4.7
Chemistry	2.0	1.9	—	5.9	—	—
Biology	8.0	9.3	—	14.7	2.4	16.3
Technical Drawing	8.0	—	19.0	5.9	29.5	—
Mech. Engineering	4.0	—	14.3	—	14.6	—
Others	2.0	1.6	—	—	7.2	4.4
Total	100	100	100	100	100	100

reliant on teacher support and more influenced by their personal interests when choosing their subjects. These personal interests will be identified shortly. Meanwhile, to confirm the findings that emerged from the assessment of favourite subjects, the respondents were asked to name the subject that they did not want to take in the senior cycle but were obliged to take. It was expected that the subjects named as favourites in the previous question would not feature strongly in the answers to this question. In fact, a surprising number of boys (11.9%) did not want Technical Drawing and 10.1% did not want Physics which would seem to suggest again that the predominant factor in the selection of these subjects was the school's policy of allocation. However, this finding does not undermine the status of Technical Drawing as a favourite subject of an even greater number of males (16.1%) as previously discovered. In fact, this finding would support the possibility of consensus between the school's subject allocation and the majority of the boys' own preferences. Only 3.1% of girls said that they did not really want Home Economics while German, Art and Music were not named as unwanted subjects by any females. These figures, then, do not contradict the findings of the previous question.

In addition, the pupils were asked to name any subject that they wished to take in addition to their chosen subjects whereupon it was revealed that 17.6% of females would like to have German amongst their Leaving Certificate subjects. This is hardly surprising given that German is provided in very few schools but it is very interesting to note that German is not mentioned here by any male. This supports the research of Hannan et al. who found that girls were more inclined

towards languages in both the junior and the senior cycle. Also, in further support of the previous findings, 10.1% of males expressed a wish to have Technical Drawing as an additional Leaving Certificate subject. To summarize briefly, it has thus far been discovered that: (a) there are more girls taking 'girls' subjects' than there are boys taking 'boys' subjects'; (b) girls achieve higher grades than boys in both the sex-stereotyped subjects and the subjects common to both sexes and (c) the sex-stereotyped subjects are, to a considerable extent, the favoured subjects of the associated sex. At this point then, it is prudent to look at the factors which the pupils themselves identified as those which determined subject choice.

Of the total female respondents, a majority of 59.1% stated that the first reason for selecting a subject was that "It will be useful for my career" while the majority of male respondents (51.2%) gave the same reason. "I like the subject" was also the first reason for 35.8% of girls and 39.7% of boys and was the most popular 'second influential factor' with both sexes as 39.7% of females and 38.3% of males asserted. The factor which was assigned third place by most pupils was "It will be useful for life in general" with 42.5% of girls and 38.7% of boys naming this as their third reason. In all three cases, the first, second and third reasons were in the same order for both sexes.

In a follow-up to naming any additional subject that was desired, the respondents were asked to explain the reason why this subject was wanted. Again, there was agreement between the sexes on the most important reason. 66% of girls and 55.6% of boys said that the additional subject "Would be useful for the future". In second place for

males (33.3%) was the fact that "It would be interesting" while this was also the second most important reason for females (27.2%). The only difference between the reasons given by girls and the reasons given by boys emerged when the pupils were asked to explain why they did not want the subject that they had already indicated as unwanted. Here, a majority of girls (35.9%) gave "Too difficult" as their reason and 25% said that the subject was "Uninteresting". In comparison, the majority of boys (31.7%) said that the subject was of "No use for the future" while the second most important reason for boys (26.7%) coincided with the girls' second most important reason. The fact that girls named difficulty where boys named career considerations would seem to support the theory that girls have lower levels of self-confidence than boys and are more inclined to downgrade their abilty. The pupils' own ability-ranking further substantiates this explanation. As Table 5.12 indicates, only 11.9% of girls place themselves amongst the top ten pupils in the class, while 31.9% locate themselves in the top third and the majority (51.8%) around the halfway mark. In contrast, 20.8% of boys see themselves amongst the top ten, 33.3% in the top third and 40% about halfway. The difference between the figures for males and females exists despite the fact that the majority of both sexes (57.8% of girls and 55.4% of boys) stated that they try to keep up with the best pupils in the class.

Finally, the respondents were presented with a Likert scale at the end of the questionnaire which was designed to measure attitudes towards sex-roles. Twenty-six statements were included of which nine related to male and female roles in school. These statements 1 to 9 are listed under Figure 5.1 where it may be seen that

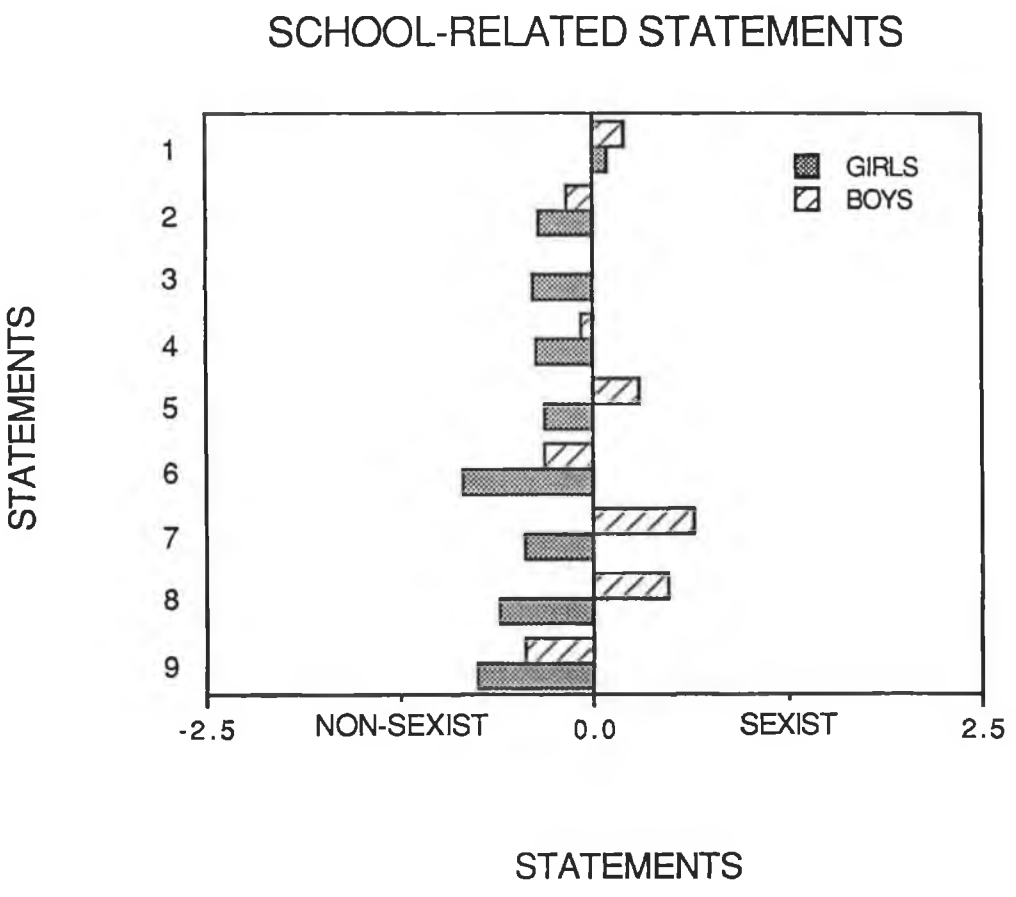
Table 5.12 Boys' and Girls' own assessment of their ability ranking in class.

RANK	Boys		Girls	
	N	% of Total Resp. (N = 120)	N	% of Total Resp. (N = 135)
Top Quintile	25	20.8	16	11.9
Second Quintile	40	33.3	43	31.9
Third Quintile	48	40.0	70	51.8
Fourth Quintile	6	5.0	3	2.2
Bottom Quintile	1	0.9	3	2.2
Total	120	100	135	100

numbers 1, 5, 6 and 8 imply equality of the sexes while numbers 2, 3, 4, 7 and 9 are biased in favour of one or the other sex. The answers to 1, 5, 6 and 8 were scored in accordance with the following: Strongly Agree = 1, Agree = 2, Don't Know = 3, Disagree = 4 and Strongly Disagree = 5. Conversely, the answers to 2, 3, 4, 7 and 9 were scored as: Strongly Agree = 5, Agree = 4, Don't Know = 3, Disagree = 2 and Strongly Disagree = 1. A mean score rating was subsequently calculated and for the purpose of illustration rather than absolute scientific integrity, is referred to as the mean SEXIST score rating. To facilitate tabulation, the mean SEXIST score rating was then converted from the range of 1 to 5 to the range of -2.5 to 2.5 where -2.5 indicates the maximum non-sexist attitude and 2.5 the maximum sexist attitude.

Figure 5.1 clearly demonstrates that boys are more sexist in their attitudes than girls, particularly so in their support for the suggestion that male teachers can control classes better than female teachers. Boys also disagree quite strongly with the assertion that girls and boys are equally competitive at school, and the proposal that Metalwork is as useful to girls as it is to boys. However, the male respondents tend to be reasonably non-sexist in evaluating the suggestion that French is more of a 'girls' subject' than a boys', and in reply to the statement that Home Economics should be taught to girls and boys. In contrast, girls are very non-sexist in their attitude to the latter and also non-sexist in assessing the status of French as a supposed 'girls' subject'. Girls show a tendency towards sexism in only one case, this being their slight disagreement with the declaration that boys and girls share an equal interest in Physics, but perhaps the female respondents believed that girls were more interested in

Figure 5.1



1. Boys and girls share an equal interest in Physics.
2. Girls are not as good at Honours Maths as boys.
3. It is better to have female primary teachers than male.
4. Biology is of more interest to girls than boys.
5. Metalwork is as useful to girls as it is to boys.
6. Home Economics should be taught to girls and boys.
7. Male teachers can control classes better than female teachers.
8. Girls and boys are equally competitive at school.
9. French is more of a girls' subject than a boys'.

Physics than boys! In general, it must be acknowledged that pupils of both sexes tend towards non-sexist attitudes.

In conclusion then, it has been shown that the pupils conform to sex-role stereotypes in their behaviour, as expressed in the proportions of boys and girls who take sex-stereotyped subjects, the variation in performance level according to sex, the pupils' favourite subjects and the additional subjects that are wanted. This finding would seem to support one of the expectations included in the first hypothesis. However, the tendency towards non-sexist attitudes as revealed in the mean SEXIST score rating, and the consensus on the factors influencing subject choice, would seem to disprove the expectation that sex-stereotyped attitudes accompany sex-stereotyped behaviour. In fact, the disparity between the two would seem to suggest that much of the observed sex-stereotyped behaviour is outside the consciousness of the pupils themselves, or at least, not as easily recognized by the pupils as sex-stereotyped statements. This finding may be highly pertinent to the next stage of analysis as it is hypothesized that pupils will perceive any attempt by the school to channel them into sex-stereotyped roles. Assuming that this is the case, it would already appear as if the gender differences in the pupils' behaviour have their origins outside the school.

THE PUPILS' PERCEPTION OF SCHOOL-DEFINED SEX-ROLES

The findings that have been presented to date have been expected in that the gender differences in subject selection were

hypothesized. However, when the research methods were designed in the earlier stages of this study, it was conceivable that the pupils would express a desire to take subjects that are not normally associated with their sex and that they would explain their inability to do so. Therefore, it was expected that a substantial proportion of this section would be devoted to the pupils' perceptions of the ways in which the school channels girls and boys into sex-stereotyped subjects. This has not proved to be the case as the investigation of the pupils' favourite subjects and required additional subjects revealed sets of subjects for each sex that are already taken in large proportions by the associated sex. Consequently, it was indicated that the pupils channelled themselves into traditional sex-roles in relation to subject choice, but to a greater extent in their behaviour than in their apparently non-sexist attitudes. It is, nevertheless, the task of this section to assess: (i)the extent to which the school attempts to determine traditional sex-roles, (ii) the extent to which the pupils perceive this aspect of schooling and (iii) the extent to which the pupils accept or reject the contribution of the school. Since the study of subject choice has already revealed the difficulty in obtaining this information from an analysis of the official curriculum, it is now proposed to examine the hidden curricula of the schools in order to test the second hypothesis.

Two aspects of the hidden curriculum were selected for attention by the study, these being extracurricular school activities and disciplinary methods. Both have been discussed in the review of literature on the hidden curriculum where the implications of boys' and girls' sports emerged from the work of Lynch (1987), and an

analysis of sex-differentiated discipline procedures was explored in the work of Davies (1984). Accordingly, the findings of the present study will be examined in the context established by these authors.

Tables 5.13 and 5.14 demonstrate respectively the first and second most frequently played sports by each sex in both single-sex and coeducational schools. It may be seen from Table 5.13 that in both types of school, the majority of females who participate in sports play basketball as their first sport (76.2% in girls' schools and 73.5% in coeducational schools) while the majority of males in both types of school play Gaelic football (31.4% in boys schools and 52.5% in coeducational schools). As is the case with subject take-up rates, the girls' sports are taken by a greater proportion of girls than the boys' sports are taken by boys and this is true of both school types. However, in coeducational schools, 32.5% of boys play basketball while only 8.2% of girls play Gaelic football. Thus, it would appear that boys have more access to girls' sports than vice versa in schools where both types of sport are provided.

Volleyball appears as the most frequently mentioned second sport played by females, with 40% of girls in coeducational schools and 27.3% of girls in single-sex schools naming it in addition to their first sport. Again, males have considerable access to the sport as indicated by the 7.9% of boys' school pupils and the 12.9% of coeducated boys who also play this sport. This contrasts dramatically with the complete absence of females form Gaelic football, hurling and soccer. As Lynch maintained that girls are concentrated in sports that involve little physical contact, with the reverse being true of males, these findings

Table 5.13 First sport played in school by pupils in single-sex and coeducational schools.

	SINGLE-SEX SCHOOLS		COEDUCATIONAL SCHOOLS	
	% Boys (N=51)	% Girls (N=42)	% Boys (N=40)	% Girls (N=49)
Gaelic Football	31.4	—	52.5	8.2
Soccer	13.7	—	—	—
P.E.	9.8	7.1	—	—
Basketball	7.8	76.2	32.5	73.5
Badminton	7.8	—	—	—
Snooker	7.8	—	7.5	—
Camogie	—	11.9	—	—
Athletics	—	—	—	8.2
Others	21.7	4.8	7.5	10.1
Total	100	100	100	100

Table 5.14 Second sport played in school by pupils in single-sex and coeducational schools.

	SINGLE-SEX SCHOOLS		COEDUCATIONAL SCHOOLS	
	% Boys (N=38)	% Girls (N=22)	% Boys (N=31)	% Girls (N=35)
Gaelic Football	21.1	—	22.6	—
Hurling	18.4	—	6.5	—
Soccer	15.8	—	12.9	—
Basketball	10.5	27.3	25.8	25.7
Badminton	10.5	9.1	—	5.7
Volleyball	7.9	27.3	12.9	40.0
Camogie	—	22.7	—	—
Rounders	—	—	6.5	8.6
Hockey	—	—	—	8.6
Rugby	—	—	6.5	—
Others	15.8	13.6	6.3	11.4
Total	100	100	100	100

would appear to support only the first part of this contention. Girls are indeed clustered around non-agressive court-games but boys do not seem to be channelled to the same extent into physically aggressive games. Instead, boys participate in a wider range of sporting activities than do girls. As a result, one would expect to find that females express a higher level of dissatisfaction than males with their sports options where sex-stereotyping by the school is recognized and, in fact, the findings are consistent with this expectation. In the single-sex girls' schools, twelve girls stated that they would like to play Gaelic football but nine of these said that it was not available in the school, two said that it was only for boys while one felt that she had not enough free time available. In the coeducational schools, four girls expressed a desire to play football and all explained that it was only for boys as did the three girls who wanted to play soccer. Interestingly, in the boys' schools, no more than one male per sport expressed a desire to play games normally associated with females. However, amongst the coeducated pupils, five males wanted to play basketball but could not as two had not enough free time and three said that it was only for girls.

While it must be noted that a relatively small number of respondents perceived sex-stereotyping in relation to sporting activities, the level of perceived sex-stereotyping increased considerably when the pupils were questioned about disciplinary methods. Table 5.15 delineates the coeducated pupils' perception of equality in the school rules. Here, 54.8% of the males believe that the rules do not apply equally to both sexes while 45.2% believe that they do. Girls are somewhat more reluctant than boys to express dissatisfaction with this aspect of schooling as is evident from the

Table 5.15 Coeducated pupils' perception of equal treatment for the sexes in the school rules.

Do the rules apply equally?	% Boys (N=62)	% Girls (N=77)
No	54.8	20.8
Yes	45.2	79.2
Total	100	100

Table 5.16 Coeducated pupils' identification of rules that apply mainly to Boys.

Rules more applicable to Boys	% Boys (N=30)	% Girls (N=16)
Not allowed to wear earings	36.7	62.4
Teachers are stricter with boys	26.7	18.7
Uniform is more limited than girls' uniform	16.7	—
Suspended more often than girls	6.7	—
No smoking rule more strictly enforced	—	6.3
Allowed to play rougher sports	—	6.3
Have a wider range of subjects than girls	—	6.3
Other	13.2	—
Total	100	100

Table 5.17 Coeducated pupils' identification of rules that apply mainly to Girls.

Rules more applicable to Girls	% Boys (N=12)	% Girls (N=6)
Must wear uniform socks	—	49.9
Jewellery is limited	41.7	16.7
Must wear skirts	16.7	16.7
Get into less trouble with teachers	16.7	—
Punished more for talking in class	8.3	—
Not allowed to wear make-up	8.3	16.7
Not allowed to do metalwork	8.3	—
Total	100	100

figure of 20.8% who disclaim the equality of the rules. The respondents were then asked to elaborate on the rules which they perceived to apply predominately to one sex. Tables 5.16 outlines the rules which both sexes perceive to pertain primarily to males and Table 5.17 indicates both sexes' understanding of rules that apply mainly to females.

Table 5.16 clearly points to the fact that both males (36.7%) and females (62.4%) are aware of gender-differentiated rules in respect of jewellery. In fact, the girls seem to be more acutely aware than boys of the rule forbidding boys to wear earrings. A higher percentage of boys (26.7%) than girls (18.7%) believe that teachers are stricter with boys, while only males (16.7%) argue that their uniform is more restricted than the uniform for the opposite sex. Similarly, it is only boys (6.7%) who complain that males are suspended for misbehaviour more often than females. Interestingly, 6.3% of the girls observed bias in favour of males in claiming that boys are allowed to play rougher sports than females and the same percentage of girls noted that boys have access to a wider range of subjects than do females.

Table 5.17 also demonstrates that the predominant concerns of both sexes are the gender differences in regulations pertinent to clothing and appearance. The majority of females (49.9%) point to the fact that they must adhere more strictly than boys to the wearing of the uniform socks, presumably because the girls must also wear skirts. While not one male mentions uniform socks as applicable mainly to females, both sexes (16.7% of males and 16.7% of females) are in

agreement that girls are confined to wearing skirts as opposed to a choice between the uniform skirt and the uniform trousers. In contrast to Table 5.16 where it was indicated that girls were concerned about the limitations on boys' jewellery, it is predominantly boys (41.7%) in this case who believe that jewellery restrictions apply more to females.

As in Table 5.16, one sex identifies an aspect of school regulations that is biased in favour of the other sex. 16.7% of males claim that generally, girls get into less trouble with teachers than do boys. However, it is revealing to note that it is only boys (8.3%) who perceive that girls get into more trouble with teachers for talking in class and surprisingly, it is only boys again (8.3%) who comment on the fact that girls are not allowed to take Metalwork. On the whole then, the findings would seem to support the second hypothesis in that the pupils perceive the school's attempt to channel them into sex-stereotyped roles. That the rules are sex-stereotyped is evident from the emphasis on appearance for girls and the apparent concern for tough measures (eg. frequent reprimanding, suspension etc.) in the control of male pupils.

The type of rules that apply to each sex in this study appear to coincide with the patterns of sex-stereotyped disciplinary procedures identified by both Davies (1984) and Lynch (1987). Lynch found that all of the girls' schools in her study insisted on the wearing of a school uniform while only half of the boys' schools did so. Davies has attempted to explain this emphasis on girls' appearance by pointing to the fact that the teachers may incorporate notions of

femininity from their own socialization into the ideology of the school, so that conformity for female pupils also implies conformity to the general sex-stereotyped ideal of woman as a passive creature, submissive to rules of conduct and personal appearance. However, despite the fact that pupils perceive these school-imposed notions of appropriate masculine and feminine behaviour, it remains to be seen whether the pupils accept or reject these notions. In the next section of this presentation of findings, the pupils' reaction to school-defined sex-roles will be assessed so that the extent of the school's contribution to gender differences may be determined.

THE PUPILS' REACTION TO SCHOOL-DEFINED SEX-ROLES

The respondents were presented with a list of four common school rules and asked to indicate whether they believed these rules to be necessary or unnecessary. As the school rules alone were not gender-differentiated, the findings were not expected to be a direct indication of boys' and girls' attitudes to sex-stereotyped school discipline. Instead, the question was posed as a further analysis of the pupils' response to an earlier question which enquired about the equal application of the rules to both sexes. In the event, it was shown that boys consider their uniform to be more limited than girls' uniform, while males also perceive females to be the most frequent recipients of admonition for talking in class. It is therefore expected that the pupils' reaction to the list of school rules, which includes rules relating to uniforms and talking in class, will indirectly reveal boys' and girls' reaction to school-defined sex-roles, as the pupils have already identified these rules as sex-differentiated.

Table 5.18 illustrates the findings for pupils in single-sex schools while Table 5.19 presents the information obtained from coeducated pupils. As expected, both tables indicate that a majority of girls agree with each rule except the rule relating to talking in class, which 54.4% of single-sex educated girls and 61.5% of coeducated girls believe to be unnecessary. The rule which receives least support from boys is that relating to the wearing of a school uniform and this is the case for both single-sex and coeducated pupils. Girls in single-sex schools give most support to the rule about wearing a school uniform while both girls and boys in coeducational schools believe that respect for the teachers is the most essential regulation.

The response of females to the necessity of a school uniform is, perhaps, the most interesting finding to emerge from this question. Almost every school that requires its pupils to wear a uniform does so on the basis of a uniform's dual purpose. The first of its functions is practicality while the second is conformity, the latter ensuring that the element of social competition in dress and appearance is minimized. Assuming that the pupils are fully aware of this intention, the girls' apparently high level of support for uniforms in single-sex schools may be attributed to the fact that these pupils have experienced social rivalry (eg. expenditure on fashionable clothes) outside school and appreciate the opportunity to leave this distraction beyond the walls of the classroom. Conversely, the lower level of support for uniforms exhibited by girls in coeducational schools may be a consequence of the concentrated social competition that girls feel in a mixed-sex environment where this competition manifests itself in

Table 5.18 Percentages of boys and girls in single-sex schools who believe that certain school rules are necessary or unnecessary.

RULE	NECESSARY %		UNNECESSARY %		NOT APPLICABLE %	
	Boys	Girls	Boys	Girls	Boys	Girls
School uniform to be worn	34.5	87.7	61.8	12.3	3.6	—
Smoking in school forbidden	44.8	57.1	51.7	39.3	3.4	3.6
Talking during class forbidden	69.1	43.9	29.1	54.4	1.8	1.8
Respect to be shown to teachers	73.2	82.1	25.0	12.5	1.8	5.4

Table 5.19 Percentages of boys and girls in coeducational schools who believe that certain school rules are necessary or unnecessary.

RULE	NECESSARY %		UNNECESSARY %		NOT APPLICABLE %	
	Boys	Girls	Boys	Girls	Boys	Girls
School uniform to be worn	40.6	65.8	56.3	34.2	3.1	—
Smoking in school forbidden	70.3	82.1	29.7	16.7	—	1.3
Talking during class forbidden	46.9	38.5	48.4	61.5	4.7	—
Respect to be shown to teachers	87.5	94.8	10.9	3.9	1.6	1.3

the desire to make themselves more attractive to the opposite sex. In the light of the previous discussion wherein it was suggested that school uniforms for girls reflect teachers' notions of feminine compliance and submission (Davies, 1984), the irony of this interpretation is that coeducated girls reject the school's limiting ideal of femininity for the even more restrictive notion of the female as a sex-object. It is already apparent then, that the gender differences which may be observed in the context of the school do not have their sole origin in the school. On the whole, however, it emerges that in both single-sex and coeducational schools, girls are more inclined than boys to believe that rules are necessary.

This finding is further substantiated by the responses shown in Table 5.20 which indicate the pupils' attitudes towards the school's most severe punishment (usually expulsion or suspension). In both single-sex and coeducational schools, practically the same percentage of girls (62.5% and 60.8% respectively) agree with the punishment but the gap between girls' and boys' attitudes is widest in coeducational schools, rendering coeducated males the most likely to disagree with the school's disciplinary procedures. This may be explained by the fact that a higher percentage of boys (77.1%) than girls (72.6%) named expulsion as their school's most severe punishment which may indicate that boys are more likely than girls to be expelled for misbehaviour.

In the next stage of the investigation, the respondents in both school types were asked to state their preference for single-sex or coeducational schools. The results of this research, as demonstrated

Table 5.20 Percentages of boys and girls in both single-sex and coeducational schools who agree or disagree with their school's most severe punishment.

	SINGLE-SEX SCHOOL		COEDUCATIONAL SCHOOL	
	% Boys (n=55)	% Girls (n=56)	% Boys (n=63)	% Girls (n=79)
Agree	56.4	62.5	49.2	60.8
Disagree	43.6	37.5	50.8	39.2
Total	100	100	100	100

Table 5.21 Percentages of boys and girls in both single-sex and coeducational schools who would prefer to be in a different type of school to their own.

	SINGLE-SEX SCHOOL		COEDUCATIONAL SCHOOL	
	% Boys (n=57)	% Girls (n=50)	% Boys (n=55)	% Girls (n=77)
Would prefer to be in a coeducational school	75.4	50.0	—	—
Would prefer to be in a single-sex school	—	—	1.8	2.6

in Table 5.21, are quite dramatic. 75.4% of boys and 50% of girls in single-sex schools would rather be in coeducational schools, while only 1.8% of coeducated males and 2.6% of coeducated females would prefer to be in a single-sex school. These findings may be explained by the responses to the following items on the questionnaire. Here, the pupils were presented with five statements on coeducational schools and seven statements on single-sex schools, each expressing an advantage of the particular school type and were asked to indicate those statements that they considered to be true of each school-type.

Table 5.22 provides the percentages of boys and girls in both single-sex and coeducational schools who agree with the statements that referred to single-sex schools. It can be seen that both sexes in each type of school give most support to the claim that "There is less distraction" and a considerable degree of support to the suggestion that "There isn't the daily pressure of trying to deal with the opposite sex" in single-sex schools. A higher percentage of single-sex school pupils (65.5% of girls and 59.3% of boys) than coeducated pupils (43.0% of girls and 42.2% of boys) agree with the former while the reverse is true of the latter, albeit to a lesser extent (20.7% of girls and 23.7% of boys in single-sex schools agree with the second statement in comparison to 26.6% of girls and 31.3% of boys in coeducational schools). Interestingly, the respondents who give most support to the claim that "There is a quieter atmosphere" are girls in single-sex schools (34.5%). Indeed, in both types of school, a lower percentage of boys than girls agree with this statement. On the other hand, a higher percentage of boys (37.3%) in single-sex schools than any other type of pupil support the suggestion that "There is less competition" in

Table 5.22 Percentages of boys and girls in both single-sex and coeducational schools who agreed with statements on the advantages of single-sex schools.

OF SINGLE SEX SCHOOLS	SINGLE-SEX SCHOOL		COEDUCATIONAL SCHOOL	
	% of Boys N=59	% of Girls N=58	% of Boys N=64	% of Girls N=79
1. It is easier to succeed	3.4	12.1	10.9	6.3
2. There is less distraction	59.3	65.5	42.2	43.0
3. There isn't the daily pressure of trying to deal with the opposite sex	23.7	20.7	31.3	26.6
4. There is a quieter atmosphere	18.6	34.5	12.5	21.5
5. There is less competition	37.3	18.9	12.5	13.9
6. There can be more of a team-spirit in class	18.6	13.8	15.6	6.3
7. The teachers can give pupils more attention	13.6	18.9	7.8	13.9

Table 5.23 Percentages of boys and girls in both single-sex and coeducational schools who agreed with statements on the advantages of coeducational schools.

OF COEDUCATIONAL SCHOOLS	SINGLE-SEX SCHOOL		COEDUCATIONAL SCHOOL	
	% of Boys N=59	% of Girls N=58	% of Boys N=64	% of Girls N=79
1. It is more challenging to work with both boys and girls	52.5	60.3	31.3	65.8
2. It is easier to make friends	55.9	56.8	56.3	70.9
3. It is more realistic to have both sexes together	67.8	60.3	82.8	86.1
4. There is a wider choice of subjects available	28.8	74.1	37.5	68.4
5. There are more opportunities to form relationships with the opposite sex	71.2	46.5	76.6	65.8

single-sex schools.

Table 5.23 presents the percentages of pupils who agreed to each of the statements on coeducational schools. It is immediately apparent that, in general, pupils see more advantages in coeducational schools than in single-sex schools. Firstly, it appears that girls in girls' schools see coeducational schools as a better environment for academic competition. This is indicated by the fact that 74.1% agree that "There is a wider choice of subjects available" while 60.3% agree that "It is more challenging to work with both boys and girls". Secondly, it seems that boys in boys' schools believe that coeducational schools provide a more realistic social environment for pupils. This is indicated by the 71.2% who agree that "There are more opportunities to form relationships with the opposite sex"; the 67.8% who believe that "It is more realistic to have both sexes together" and the 55.9% who support the claim that "It is easier to make friends" in coeducational schools.

Again, boys who are already in coeducational schools give most support to the three statements that received the highest percentage of agreement from boys in single-sex schools. Amongst this group, 82.8% believe that "It is more realistic to have both sexes together". 76.6% agree that "There are more opportunities to form relationships with the opposite sex" and 56.3% believe that "It is easier to make friends". Finally, female pupils in coeducational schools express a combination of social and academic factors in their support for their own type of school. 86.1% respond to the claim that "It is more realistic to have both sexes together"; 70.9% agree that "It is

easier to make friends" and 68.4% support the idea that "There is a wider choice of subjects available".

Comparing Table 5.22 and Table 5.23, the most pertinent finding to emerge is that pupils of both sexes, in both types of school, agree on the same advantages of each type of school. However, males and females in each type of school give a greater level of support to the advantages of mixed education than they do to the advantages of single-sex education. This finding is somewhat surprising in the light of earlier research (Rennie and Parker, 1987) which suggested that girls are disadvantaged by mixed-sex education, as it seems to imply that the pupils themselves are not aware of any such effect. This raises questions about the origins of the pupils' attitudes towards gender and education, which the concluding chapter will attempt to answer. In the meantime, the following section of this chapter will investigate the extent to which these attitudes are determined by home life and the peer-group.

GENDER DIFFERENCES IN THE HOME

The findings that are presented in this section of the chapter relate to the third hypothesis as they contribute to the assessment of the pupils' sex-stereotyped behaviour outside the school. The two areas of home-life and peer-group activities were selected for this investigation. It was expected that boys and girls would exhibit a high degree of sex-typed behaviour and attitudes in these spheres, to the extent that this may be said to determine their sex-typed behaviour in the context of the school. As is the case throughout this

chapter, the research findings will be discussed and placed in the context of previous research, while for the most part, the implications of the findings for the present study will be retained until the concluding chapter.

The analysis of the pupils' home-life was divided into three principal areas, these being: (i) the division of labour in the home, (ii) the extent to which subject choice was discussed in the home and (iii) the extent to which career options were discussed in the home. Table 5.24 illustrates the percentages of boys and girls who reported a certain division of labour in the home for housework. It is interesting to observe that 60% of the girls state that housework in their home is "Done mainly by females", while only 38% of the boys report the same! A majority of male respondents (44.6%) state that all tasks are shared equally in their homes while this claim is supported by the second largest group of females (31.9%). Clearly, the sexes have different perceptions of their contribution to work in the home and unfortunately, further analysis of this finding is beyond the scope of this work. However, it is pertinent to the present study to note that the majority of all respondents (N=127) are in homes where the housework is is done mainly by females. This contrasts dramatically with the exceptionally small number of respondents (N=6) whose housework is "Done mainly by males". In fact, the latter percentage is so low as to suggest that the figure is derived from those households where a mother is deceased and the children are all male. Taking into account the number of households where all tasks are shared equally by both sexes, the findings still point to the fact that housework remains predominantly the preserve of females.

Table 5.24 Percentages of boys and girls who reported a certain division of labour in the home.

DIVISION OF LABOUR (HOUSEWORK)	Boys		Girls	
	N	% of Total Respondents (N=121)	N	% of Total Respondents (N=135)
Done mainly by females	46	38.0	81	60.0
Done mainly by males	6	5.0	—	—
Divided into separate tasks for males and females	15	12.4	11	8.1
All tasks shared by everyone	54	44.6	43	31.9
TOTAL	121	100	135	100

Table 5.25 Percentages of boys and girls who contribute to certain household tasks.

TYPE OF HOUSEWORK	Boys		Girls	
	N	% of Total Respondents (N=123)	N	% of Total Respondents (N=137)
Cook meals	36	29.2	60	43.7
Set the table	62	50.4	93	67.8
Clean kitchen after meals	63	51.2	106	77.4
Tidy own bedroom	95	77.2	112	81.7
Vacuum clean/Sweep floors	48	39.0	81	59.1
Make beds	49	39.8	63	45.9
Help with gardening	66	53.6	24	17.5
Wash or iron clothes	7	5.7	76	55.4
Clean windows	35	28.4	37	27.0
Bring in fuel for fire	100	81.3	55	40.1
Babysit	53	43.1	62	45.2

Also in relation to housework, the respondents were presented with a list of eleven common household tasks which contained the following items: (i) Cook meals, (ii) Set the table, (iii) Clean kitchen after meals, (iv) Tidy own bedroom, (v) Vacuum/Sweep floors, (vi) Make beds, (vii) Help with gardening, (viii) Wash or iron clothes, (ix) Clean windows, (x) Bring in fuel for the fire and (xi) Babysit. The respondents were required to indicate the tasks with which they usually assisted. Table 5.25 outlines the responses of both sexes and demonstrates the gender differences in the pupils' experiences of home-life.

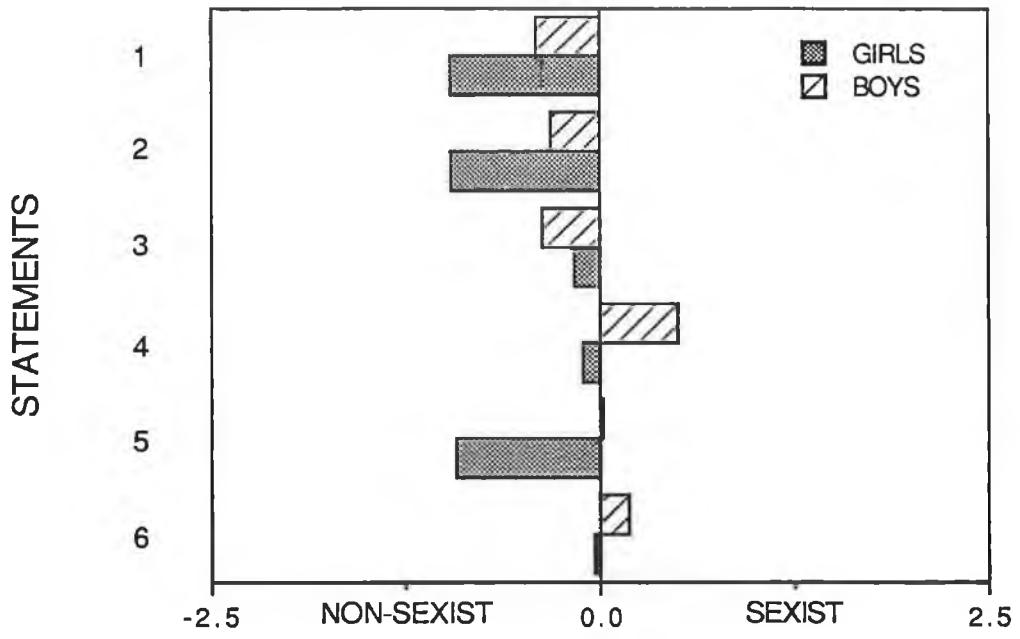
In the case of each sex, there are five tasks which are undertaken by more than half of the respondents. Girls' tasks are as follows, in order of decreasing participation rates: "Tidy own bedroom" (81.7%), "Clean kitchen after meals" (77.4%), "Set the table" (67.8%), "Vacuum/Sweep floors" (59.1%) and "Wash or iron clothes" (54.4%). For boys, the most frequent chores are: "Bring in fuel for the fire" (81.3%), "Tidy own bedroom" (77.2%), "Help with gardening" (53.6%), "Clean kitchen after meals" (51.2%) and "Set the table" (50.4%). While both sexes are obviously expected to keep their own bedrooms tidy, it would seem that the females are concentrated in the traditional areas of 'women's work' (ie. kitchen-centered tasks), while boys dominate the traditionally male areas of outdoor work. This suggestion is reinforced by the fact that the male-dominated tasks feature the lowest participation rates for females. (The relatively small proportion of 40% bring in fuel for the fire while only 17.5% help with the gardening). Furthermore, males show very little contribution to female-dominated areas as is evident from the fact that only 5.7% of

males wash or iron clothes. These findings appear to be consistent with the 1982 findings of Alison Kelly et al. whose observations on the division of labour in the home may also be divided along these indoor/outdoor lines.

Finally, this first area of investigation into home-life attempted to assess the pupils' attitudes towards gender roles in the home. This enquiry was enabled by a series of statements relating to home-life which constituted a sub-section of the Likert scale at the end of the questionnaire. The pupils were required to indicate their level of (dis)agreement with the statements that were subsequently scored according to the method outlined in reference to Figure 5.1 at the end of the section entitled "The type and extent of sex-role stereotyping in schools". The statements and the SEXIST score rating for boys and girls are presented in Figure 5.2. Attention is drawn immediately to the boys' score rating for the fourth statement. Obviously, boys are very much inclined to agree that "Mothers with young children shouldn't work outside the home". To a somewhat lesser extent, boys exhibit a tendency towards sexism on the final statement, indicating that they disagreed with the claim that "Men are as good at rearing children as women". In reference to the remaining statements, the male respondents demonstrate a tendency towards non-sexism but never to the degree of non-sexism expressed by the female respondents. However, it is revealing to observe that girls express their lowest degree of non-sexism in relation to the two statements (statement number four and statement number six) to which the boys gave sexist responses. Thus, it would seem that while the pupils support the idea of both sexes contributing to housework

Figure 5.2

HOME(LIFE)-RELATED STATEMENTS



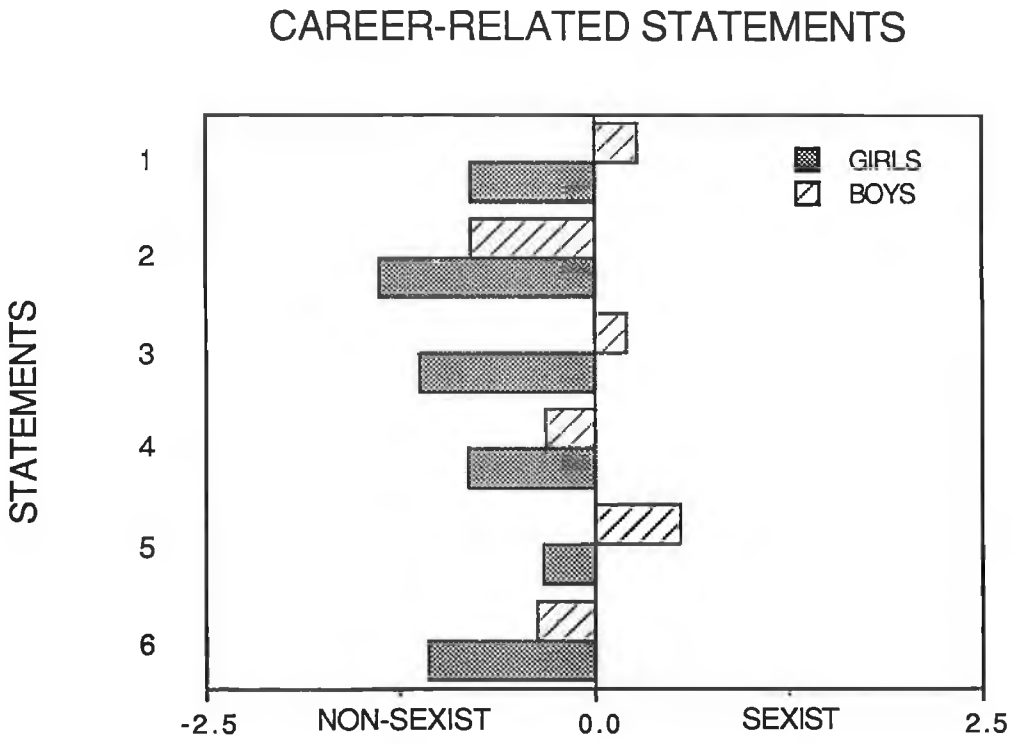
STATEMENTS

1. Girls should not stay out at night as late as boys.
2. Married couples should share the housework equally.
3. A boy cannot be as good a babysitter as a girl.
4. Mothers of young children shouldn't work outside the home.
5. Boys and girls should help with the same housework.
6. Men are as good as women at rearing children.

(statements number two and statement number five) and also agree on equality of rules for boys and girls (statement number one), the identification of gender differences arises on the issue of child-rearing. Both sexes are in agreement here that this is woman's work.

On the same topic of 'woman's work' and 'man's work', the next stage of investigation, which examined the pupils' attitudes towards careers, reveals that boys have distinctly sex-typed notions of work-roles while girls proclaim equality of the sexes, to varying degrees. Again, the respondents were presented with six statements which were included in the Likert scale and the answers were scored in accordance with the method used for Figures 5.1 and 5.2. The findings for the career-related statements are presented in Figure 5.3 where it may be seen that boys lend considerable support to the claim that "Careers will be more important for men than for women throughout life". Similarly, males disagree that "Engineering is a career suitable for both sexes" and fail to support the statement that "A woman's career is as important as a man's career". On the other hand, males demonstrate their highest degree of non-sexism in answer to the declaration that "Women should be paid as much as men in the same job", as indeed do females. Other statements which receive a high degree of support from females include the assertions that " A woman's career is as important as a man's career", "Women can be successful business executives", "Engineering is a career suitable for both sexes" and "Male nurses are as good as female nurses". The latter is a surprising response from girls considering that boys did not agree with this to the same extent. It is also worth noting that girls express

Figure 5.3



STATEMENTS

1. Engineering is a career suitable for both sexes.
2. Women should be paid as much as men in the same job.
3. A woman's career is as important as a man's career.
4. Male nurses are as good as female nurses.
5. Careers will be more important for men than for women throughout life.
6. Women can be successful business executives.

their lowest degree of non-sexism in relation to the claim that "Careers will be more important for men than for women throughout life" thereby indicating that only a little over half of the female respondents disagreed with this statement.

The analysis of the pupils' home-life proceeded to establish the extent to which the pupils discussed subject choice and career options with their parents. Table 5.26 delineates the percentages of boys and girls who discussed subject choice with various significant other. It is clearly parents who have the greatest role to play in this respect, with 77.2% of boys and 81.7% of girls consulting their opinion. After parents, both boys (50.4%) and girls (61.4%) are most likely to confer with classmates while the career guidance teacher takes third place for girls (56.2%) and is the least likely person to be consulted by boys (26.8%). As one would imagine, subject teachers have a substantial input into the pupils' decisions with 40.6% of boys and 38.6% of girls receiving their advice but nevertheless, the teachers remain only half as likely to be consulted as the parents.

A similar situation arises in relation to career consideration, particularly for the male respondents, as outlined in Table 5.27. Boys are most likely to consult both parents (71.5%) followed by a discussion with school-friends (66.6%). The career guidance teacher takes third place, with 46.3% of boys seeking an opinion in this quarter. Comparing this finding to the responses in Table 3.5, it would appear that boys identify a weak connection between career options and subject choice. The majority of girls (75.9%) prefer to discuss careers with their school friends while the second largest percentage

Table 5.26 The percentages of boys and girls who discussed subject choice with various "significant other".

DISCUSSED SUBJECT CHOICE WITH:	Boys		Girls	
	N	% of Total Respondents (N=123)	N	% of Total Respondents (N=137)
Parents	95	77.2	112	81.7
Career Guidance Teacher	33	26.8	77	56.2
Subject Teacher(s)	50	40.6	53	38.6
Classmates	62	50.4	84	61.4
School friends	43	34.9	53	38.6
No-one	13	10.6	8	5.8

Table 5.27 The percentages of boys and girls who discussed careers with various "significant other".

DISCUSSED CAREERS WITH:	Boys		Girls	
	N	% of Total Respondents (N=123)	N	% of Total Respondents (N=137)
Both Parents	88	71.5	97	70.1
Mother only	14	11.4	31	22.6
Father only	3	2.4	2	1.5
Career Guidance Teacher	57	46.3	100	72.9
Subject Teacher(s)	28	22.8	33	24.1
School Friends	82	66.6	104	75.9

of 72.9% consult their career guidance teachers. Parents follow closely in third place with 70.1% of girls considering their input. However, since the respondents were asked to indicate not one, but all of the bodies consulted, a high degree of over-lapping may occur in these percentages. To account for this posibility, the following question asked each individual to state the source of that which they considered to be the most important advice. Table 5.28 illustrates the responses to this question and substantiates the findings for the previous question. Boys are indeed most likely to value the opinion of their two parents (52.2%) with the career guidance teacher being the most important advisor for only 29.2% of boys. This is an interesting finding in view of the fact that boys have a greater tendency than girls to express gender-differentiated attitudes towards careers.

Girls do not polarize between their parents and the career guidance teacher to the same extent, as 37.6% prefer the advice of the former and 44% the advice of the latter. However, it is important for the purpose of this research to note that for both sexes combined, the parental input is of greater value to the pupils than the input of the school. In fact, this is hardly surprising when one considers the small number of opportunities that the pupils have to consult the career guidance teacher. Table 5.29 depicts the number of times that both male and female respondents have spoken to their career guidance teacher in the two year period prior to the research. Evidently, the majority of boys (28.9%) never benefit from this professional service while 20.7% have had only two consultations. Girls are in a slightly better position in that the majority (22%) have had two consultations and 18.2% have had three. Nevertheless, only 31% of girls and 24% of

Table 5.28 Source of most important advice on careers for boys and girls.

SOURCE OF MOST IMPORTANT ADVICE	Boys		Girls	
	N	% of Total Resp. (N=113)	N	% of Total Resp. (N=125)
Both Parents	59	52.2	47	37.6
Mother Only	3	2.7	11	8.8
Father Only	1	0.9	1	0.8
Career Guidance Teacher	33	29.2	55	44.0
Subject Teacher(s)	8	7.1	7	5.6
Friends	9	7.9	4	3.2
Total	113	100	125	100

Table 5.29 Number of times that boys and girls have spoken to their career guidance teacher in the past two years.

NO. OF TIMES	Boys		Girls	
	N	% of Total Resp. (N=111)	N	% of Total Resp. (N=132)
Once	12	10.8	27	20.5
Twice	23	20.7	29	22.0
Three times	17	15.3	24	18.2
Four times	10	9.0	12	9.1
Five times	4	3.6	11	8.3
Six times	3	2.7	3	2.3
Eight times	—	—	4	3.0
Ten times or more	10	9.0	11	8.3
Never	32	28.9	11	8.3
Total	111	100	132	100

boys have had more than three discussions with their career guidance teacher. It is difficult to determine whether the pupils depend on their parents in the absence of adequate guidance facilities or whether the pupils reject career guidance in the school in the belief that their parents' advice is more useful. However, it is more important to record that the home seems to have more influence in this regard than the school.

GENDER-DIFFERENTIATION IN PEER-GROUP ACTIVITIES

The analysis of the respondents' peer-group activity focused primarily on leisure interests including hobbies and reading material. Central to this enquiry was the extent to which the sexes interacted as a result of these interests and the extent to which the pupils themselves perceived gender differences in this sphere. In the corresponding section of the questionnaire, the pupils were asked firstly to list their favourite leisure activities and secondly, to indicate the sex of those with whom they normally share these activities. As the pupils had the option of naming up to three leisure activities, without placing these in any order or priority, the findings were tabulated in accordance with the total number of references received by each activity. Table 5.30 presents the findings and indicates the percentages of males and females who mentioned each pastime. The first point to note is that a majority of boys (30.3%) name "football" as their favourite leisure activity while a majority of girls (44.8%) name "reading". Even more revealing is the fact that only 13.9% of boys mention "reading", and "football" does not feature at all amongst the girls responses. Both "swimming" and "cycling" appear to be of equal

Table 5.30 The leisure activities of boys and girls.

LEISURE ACTIVITIES	Boys		Girls	
	N	% of Total Respondents (n=122)	N	% of Total Respondents (n=136)
Football	37	30.3	—	—
Television	25	20.5	20	14.7
Swimming	25	20.5	31	22.8
Cycling	23	18.8	30	22.1
Hanging Around	22	18.0	29	21.3
Snooker	19	15.6	—	—
Reading	17	13.9	61	44.8
Listening to Music	15	12.3	19	13.9
Soccer	15	12.3	—	—
Discos	12	9.8	28	20.6
Fishing	11	9.0	—	—
General Sports	10	8.2	11	8.1
Computers	7	5.7	—	—
Hurling	5	4.1	—	—
Playing Music	4	3.3	—	—
Tennis	3	2.5	17	12.5
Rugby	3	2.5	—	—
Smoking	3	2.5	—	—
Basketball	—	—	16	11.8
Walking	—	—	15	11.1
Horse-Riding	—	—	10	7.3
Art	—	—	6	4.4
Running	—	—	6	4.4
Canoeing	—	—	4	2.9
Camogie	—	—	4	2.9

Table 5.31 The sex of those with whom boys and girls share their leisure activities.

SHARE WITH:	Boys		Girls	
	N	% of Total Resp. (N=122)	N	% of Total Resp. (N=136)
Both Sexes	90	73.8	107	78.6
Males	23	18.9	2	1.5
Females	2	1.6	19	14.0
Neither	7	5.7	8	5.9
Total	122	100	136	100

attraction to the sexes with 22.8% of girls and 20.5% of boys participating in the former while 22.1% of girls and 18.8% of boys participate in the latter. However, gender differences are evident again in relation to visual entertainment as the second largest percentage of boys (20.5%) name "television" as their favourite leisure activity in comparison to only 14.7% of girls. A similar situation exists with "discos" which feature prominantly in girls' list of pastimes (a favourite activity of 20.6%) but are mentioned only by 9.8% of boys.

Perhaps the most interesting aspect of the pupils' leisure activities is not the different participation rates of boys and girls in the same activities but the fact that each sex names a substantial number of activities which are exclusive to that sex. Evidently, boys do not have any interest in "walking", "rugby", "canoeing", "basketball", "art" or "horse-riding" while girls are completely absent from "football", "soccer", "hurling", "rugby", "snooker", "fishing" and "computers". Both this finding and the previous observation of disproportionate participation rates render it surprising then that the majority of both boys (73.8%) and girls (78.6%) claim to share their leisure interests with both sexes (Table 5.31). Only 5.9% of girls state that they share their leisure activities with neither sex which, again, seems unreliable in view of the fact that "reading" was the most popular pastime for girls. Similarly, only 5.7% of boys claim solitary pursuits although 20.5% mentioned "television" as a favourite interest. It may therefore be suggested that when presented with a direct question on the integration of the sexes, both sexes are keen to deny gender-differentiation, although this clearly exists. Assuming this to

be the case, this finding would appear to be consistent with the disparity between sex-typed behaviour and sex-typed attitudes which was discussed at the end of this chapter's first section on "The type and extent of sex-stereotyping in the schools". In other words, both boys and girls claim equality of the sexes as actual gender differences remain outside the consciousness of each individual.

In a further investigation into the pupils' leisure interests, the respondents were asked to provide the names of up to three magazines which they found enjoyable to read. Magazines were specifically selected for analysis as it was expected that a greater proportion of both sexes would engage in casual reading than would engage in the reading of extracurricular books. Over seventy-three magazines were named and were subsequently placed under ten categories, these being: (i) Pop/Music, (ii) Comics, (iii) Teenage romance, (iv) Women's interest, (v) Sports/Hobbies, (vi) Media/News, (vii) Politics/Business, (viii) Science, (ix) Religion and (x) Miscellaneous. Again, the responses were tabulated in accordance with the method employed for Table 5.30. Table 5.32 illustrates the outcome. As one can see from this table, the most remarkable contrast between the sexes is that fact that almost a third of males read comics, while not one female mentions this type of literature. On the other hand, teenage romance magazines are read by 81.7% of females and not at all by males. Only one male confessed to reading 'Women's interest' magazines in comparison to 33% of females. The reverse is true of sports and hobby magazines which are popular with 37% of boys but with only 5.2% of girls. In addition, gender differences may be observed in the extent to which each sex demonstrates an interest

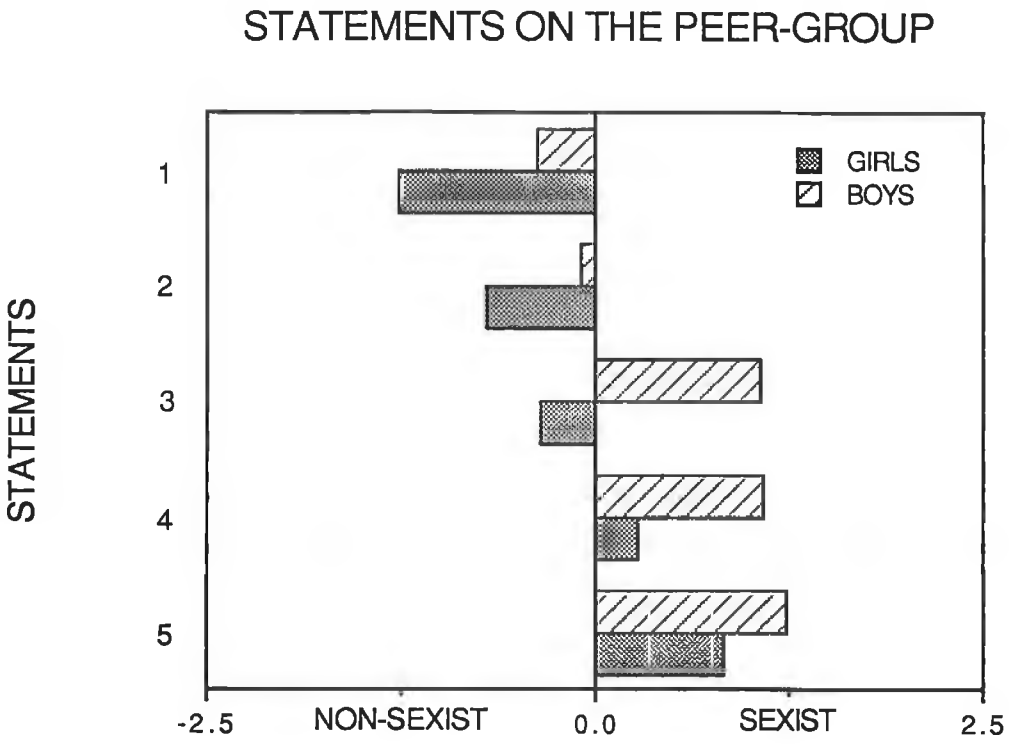
Table 5.32 The favourite magazines of boys and girls.

MAGAZINES	Boys		Girls	
	N	% of Total Resp. (N=89)	N	% of Total Resp. (N=115)
Pop/Music	79	88.7	115	100.0
Sports/Hobbies	33	37.0	6	5.2
Comics	26	29.2	—	—
Science	14	15.7	2	1.7
Media/News	10	11.2	11	9.5
Politics/Business	6	6.7	6	5.2
Religion	1	1.1	1	0.8
Teenage Romance	—	—	94	81.7
Women's Interest	1	1.1	38	33.0
Miscellaneous	2	2.2	6	5.2

in scientific topics. 15.7% of the male respondents mention science magazines amongst their favourite reading material as opposed to only 1.7% of females. Thus, it would seem that the traditional areas of 'male interest' and 'female interest' prevail. Boys are predominantly concerned with sports and amusement while girls' interests centre on the world of relationships, fashion, cookery, personal problems, children and home, that is reflected in 'women's magazines'.

Finally, the pupils' attitudes towards their peer-group were assessed by their response to five statements which were included in the Likert scale. The respondents level of (dis)agreement was scored in the same way as the other statements in this scale (see Figures 5.1 to 5.3) and a 'SEXIST' rating obtained. Both this rating and the list of statements on the peer-group are indicated in Figure 5.4. The findings are quite dramatic when placed in the context of previous responses to the items in the Likert scale (Figures 5.1 to 5.3). Here, the male respondents demonstrate a much higher degree of sex-stereotyping than they do in their attitude to gender differences in the school, in the home and in relation to careers. According to a large proportion of boys, "Girls are more concerned about their personal appearance than boys" and "Girls are more sensitive than boys". It is interesting to notice that a substantial proportion of girls also agree with both of these statements, although to a lesser extent with the former. Boys also strongly disagree with the claim that "Football can be played equally well by boys and girls" although girls are more inclined to agree with this statement. Also tending towards non-sexist attitudes are the girls' responses to the first two statements where it is evident that girls strongly disagree with the suggestion that "Boys are more intelligent

Figure 5.4



1. Boys are more intelligent than girls.
2. Boys can voice their opinions better than girls.
3. Football can be played equally well by boys and girls.
4. Girls are more concerned about their personal appearance than boys.
5. Girls are more sensitive than boys.

than girls" and also disagree with the assertion that "Boys can voice their opinions better than girls". On the whole, the distribution of girls' responses demonstrates a combination of both sexist and non-sexist attitudes while the boys' responses indicate a strongly sex-typed view of the peer-group.

To summarize briefly, this chapter has set forward the findings for each area of investigation that is relevant to the hypotheses. The first of these areas was the school where it was discovered that subject selection is gender-differentiated and, to a large extent, may be attributed to the pupils' own choices. The second section of the chapter focused on the pupils' perceptions of gender differences in the school and the pupils' reaction to school-defined sex-roles. Here, it was indicated that pupils of both sexes were aware of the restrictions implied by their school's code of appropriate behaviour for males and females. Despite the obvious limitations on the pupils' freedom of expression, a substantial proportion of predominantly male pupils object to this gender-differentiation. However, the third section of the chapter, which dealt with the home and peer-group revealed that both sexes were, in many ways, extremely sex-typed in their behaviour and attitudes outside of school. In the following chapter the extent to which the findings appear to support or refute the hypotheses will be analysed and the implications of these findings will be discussed in the light of the theory.

CHAPTER SIX

DISCUSSION AND CONCLUSIONS

To place the findings of this research in the context of previous research and to discuss the results in the light of the theories which have been reviewed, it may be useful to summarize the three core elements of this study, which are: (i) the problem, (ii) the methodology and (iii) the findings.

Briefly then, the problems generated by gender differences in second-level schooling were identified in the maintenance of sex-stereotyped career choices, the status associated with each sex in the labour force, the division of labour in the home and the contribution of the sexes to the general construction of knowledge. It was shown that in a study by Hannan et al. (1983) in Irish second-level schools, over half of the girls in a sample of Leaving Certificate pupils expressed a willingness to give up a job and dedicate themselves to the full-time care of their children. In comparison, only 2.9% of boys would be prepared to do likewise. Additionally, 40% of the girls expected to work on a part-time basis upon the arrival of children while only 5.9% of boys stated this opinion. 63.6% of males asserted that they would continue in full-time employment if they had children, as their wives would give up working to tend the family on a

full-time basis.

The notion that home and child-centred work is the preserve of females, and the general acceptance of women's low status in the labour force, is reflected in the educational system in terms of the subjects taken by girls and boys. The problems which were identified here included the provision of certain subjects for each sex, the participation levels of each sex in subjects that are generally available and the levels of achievement attained by the sexes in each discipline. It was shown that boys are over-represented in Higher Maths, Physics, Technical Drawing and Woodwork while girls constitute the majority of candidates for Home Economics, Languages, Art and Music. In addition, it was demonstrated in the work of Hannan et al. that the pupils' own choice determined subject selection to a greater extent than the factors of subject provision and subject allocation. Consequently, gender-differentiation in the schooling process was identified as an area which required research.

The principal objectives of this thesis were threefold. Firstly, it was considered necessary to establish the extent to which gender differences exist in schools and in school-related activities. Central to the enquiry were the subjects that were chosen by the pupils, the pupils' reasons for their selection, the number of consultations with the career guidance teacher, the extracurricular activities in the school and the application of the school rules. Secondly, the thesis set out to determine the extent to which pupils perceive the practice of gender-differentiation in schools. An integral aspect of this assessment was the pupils' reaction to this

practice or the degree to which the pupils accepted or rejected sex-role stereotyping in the school. Thirdly, the research aimed to ascertain the contribution of the home background and the peer-group to the gender differences that may be observed in the context of the school.

On completion of these enquires, it was expected that the origins of the gender differences in second-level schools would be identified. It was hypothesized that gender differences could be attributed to the home-background and peer-group of the pupils to a greater extent than the school, as it was expected that the pupils would perceive and reject the school's attempt to channel them into particular sex-roles. It was suggested that the pupils would neither perceive nor reject the gender differences that prevail outside of the school environment as readily as they react to the hidden curriculum of the school. For a number of important reasons, not least of which was the process of subject selection for the Leaving Certificate, fifth-year pupils were chosen as the sample and were selected from a range of six schools which included single-sex secondary schools, coeducational VEC post-primary schools and coeducational community schools. The research instrument was a detailed questionnaire (see Appendix) which investigated both attitudes and behaviour in each area of the pupils' lives that was pertinent to the study.

On the whole, the findings appear to support the hypotheses although there are varying degrees of support for each hypothesis. In addition, some unexpected findings emerged in the course of the research which deserve attention. In keeping with the format for the

review of literature, the first task of this chapter will be to assess the relationship between the findings and the hypotheses, with reference to previous research. Secondly, this chapter will assess the place of the findings in the context of the theoretical approaches to the problem of gender differences.

THE RELATIONSHIP BETWEEN THE FINDINGS AND THE HYPOTHESES

(i) **THE FIRST HYPOTHESIS:** In the first instance, it was hypothesized that the pupils would conform to sex-role stereotypes both in their behviour, as expressed in their subject choices and in their attitudes, as revealed in their reasons for particular choices. A number of findings support the first part of this hypothesis. The pupils are indeed divided into different subject areas, according to their sex. Home Economics, Commerce, German, Music and Art are generally female-dominated subjects, while Higher Maths, Physics, Woodwork, Technical Drawing and Mechanical Engineering are male-dominated subjects. There are some indications that the polarization of the sexes is more extreme in coeducational schools than in single-sex schools as Home Economics is most favoured by girls in the vocational schools and the majority of boys who favour Technical Drawing are in community schools. It is also true that Home Economics is not named amongst the favourite subjects of any male respondent and Mechanical Engineering is not mentioned by any female but it is suggested that the latter case may be attributed to the coeducational school's policy of subject allocation and the single-sex school's lack of subject provision. As the analysis of the pupils' subject selection was

accompanied by an investigation into the pupils' favourite subjects, it is apparent that the sex-typed subject selection is indeed a reflection of the pupils' own choices. This finding is expected as it would be difficult to believe that the school could coerce the pupils into taking unwanted or disliked subjects. While it may be suggested here that the pupils named the sex-stereotyped subjects among their favourites as a result of the limited choice offered by the school, further research to determine the pupils' unwanted subjects and desired additional subjects seems to indicate that the pupils' decisions reflect their "true choice".

One of the results of the research into gender-differentiated subject choice was the discovery that 'girl's subjects' are more female-dominated than 'boy's subjects' are male dominated. Thus, it would seem that girls exhibit a higher degree of sex-stereotyping than boys in relation to subject choice. This is the case despite the fact that girls were found to be higher achievers than boys. The fact that girls remain within the limited range of traditional 'girl's subjects' was questioned in the light of girls' achievement level and it was suggested that the tendency could be attributed to the girls' dependence on the teachers' support. This explanation, which is derived from the work of Hannan et al. (1983) points to the low self-esteem of female pupils and their necessary dependence on the teachers' support which ultimately enables girls to obtain better results than they would have attained had they chosen the subjects without reference to advisors.

However, there are certain aspects of this explanation which render it unsuitable for application to the findings. Firstly, this explanation implies that teachers are the girls' principal advisors and that the pupils will place a high value on their guidance. Secondly, it implies that the teachers will avail of the girls' dependence on their opinion to guide them towards the subjects that are traditionally associated with their sex. The argument then, is that girls will feel more confident about their subject choice and as a result of this self-assurance, combined with their tendency to achieve higher grades than boys, will perform well in 'girl's subjects'. In turn, this will lead to a history of female success in the 'girl's subjects' which may be used to justify the original choice of 'female-orientated subjects'.

There are two problems with this explanation for the present study. The first problem is that girls have been shown to perform to a high standard in all subjects in comparison to boys (see Tables 5.6 to 5.9b). It may reasonably be suggested that this is sufficient indication to female pupils of their ability to undertake any subject and achieve satisfactory grades. The second problem is that there is very little evidence to support the idea that teachers make any substantial contribution to the pupils' subject choices. Despite the fact that approximately one third of pupils discuss subject choice with their subject teachers, "advised by teacher(s)" does not feature among either sexes' top three most important reasons for choosing subjects. Similarly, the intervention of the teacher is not evident among the pupils' reasons for taking unwanted subjects or for not taking additional subjects. In fact, it appears to be parents who have the

greatest role to play in assisting pupils' subject selection, which would transfer the origins of gender-differentiation from the school to the home background. Alternatively, it may be that girls choose 'girl's subjects' and boys chose 'boy's subjects' as a result of the pupils' own sex-stereotyped career expectations.

With this possible explanation in mind, it was towards the assessment of sex-role stereotypes in the pupils' attitudes that the second part of the first hypothesis was directed. In fact, the findings here were somewhat unexpected, as it appears that girls, at any rate, do not tend towards gender-differentiation in their attitudes. Both sexes gave the same reasons for choosing their subjects and were primarily concerned with the relevance of their subjects to their future careers. The respondents were not asked to state the type of careers that they hoped to pursue, but in response to a number of career related statements (see Figure 5.3), it was clear that girls believe in the equality of the sexes, both in terms of occupational options and economic status. Conversely, boys were inclined to support the view that males play a more important role than females in the labour force. Again, the home may be largely responsible for the boys' attitudes, as the majority of males consult their parents before other advisors on the issue of careers and are more likely than girls to do so. However, the fact remains that there is a discrepancy between girls' behaviour and girls' attitudes on both the issue of careers and the subject of sex-roles in schools.

Looking to the next hypothesis (that gender differences in pupils' attitudes and behaviour cannot be attributed to the influence

of the school alone), a possible explanation for this may be that girls, in particular, reject overt gender-differentiation, in the form of school-defined sex-roles and similarly reject the direct statements on sex-stereotyping that appear on the attitudinal scale, in the questionnaire. In effect, the pupils make an effort to avoid sexist attitudes and are successful in their attempts when confronted with obvious gender-differentiation, but actually exhibit a considerable degree of sex-stereotyping in their behaviour as a result of the formative influences outside of the school. These external influences transmit cultural messages on the behaviour of the sexes that the pupils do not perceive as readily as the manifest message of the school and of the written word.

(ii) **THE SECOND HYPOTHESIS:** Accordingly, it was hypothesized that the gender differences in pupils' attitudes and behaviour cannot be attributed to the influence of the school alone as: (a) the pupils perceive the school's attempt to channel them into sex-stereotyped roles, (b) the pupils reject these pressures that they identify as school-based pressures and (c) coeducated pupils demonstrate the strongest tendency to reject. The areas of extracurricular activity and school-rules, which were identified by Lynch (1987) and Davies (1984), respectively, as the transmitters of the hidden curriculum, were selected for attention and the findings support these authors' contention that boys and girls receive different treatment in these aspects of school life.

In the sports field, girls were concentrated in the non-aggressive games such as Basketball and Volleyball, while the

majority of boys were to be found playing games such as Gaelic football and soccer that involve rough contact. Similarly, school-rules appear to emphasize the ideal of passive femininity in their strict imposition of school-uniforms on female pupils. As in Lynch's work, both of the girls' schools in this study insisted on the wearing of a uniform. The application of this rule to females was even more obvious in some of the coeducational schools where it emerged that girls could not wear the same uniform (e.g. trousers) as boys in the same school.

The present study departed from those of Lynch and Davies in assessing the extent to which the pupils themselves perceived the gender differences in these areas. It was found that only a small number of females and remarkably few males commented on the fact that certain sports were "only for girls" and others "only for boys", which is similar to the findings for subject selection. In other words, these findings suggest that the sports that are taken by girls and boys in school are a reflection of the activities that are actually favoured by each sex. This is not entirely unexpected as it is feasable that the extracurricular activities of the school are determined by the pupils' leisure interests outside of the school. This being the case, the gender differences in the pupils' behaviour may be attributed to the influence of the peer-group and may not be identified by the pupils in the same way as those which the pupils understand to be school-imposed distinctions between the sexes.

This explanation is substantiated by the respondents' sensitivity to gender-differentiation in the school rules and

disciplinary procedures, both of which can certainly be classified as school-imposed behavioural codes. Over half of the boys in coeducational schools did not believe that the rules applied equally to both sexes while almost half of the girls (45.2%) supported this view. The male respondents were most eager to point out that girls got into less trouble than boys with the teachers and were less likely to be suspended for misbehaviour, while the female respondents were primarily concerned with the unequal treatment of the sexes in respect of clothing and appearance. In addition, 6.3% of the females stated that boys have a wider range of subjects than girls and as if to support this statement, 8.3% of the males comment on the fact that girls are not allowed to take Metalwork. It may therefore be advanced that these findings support the first part of the second hypothesis, insofar as they point to the fact that pupils perceive the school's attempt to channel them into traditional sex-roles.

However, some difficulties arose in testing the remainder of the second hypothesis. It was originally intended to determine the type and extent of resistance to gender-differentiated school rules exhibited by the pupils, in the same way as Willis (1977) demonstrated working-class pupils' resistance to the middle-class values that are transmitted through the medium of schooling. Brake (1985) explains the phenomenon of resistance that comes into focus in the work of Willis by declaring that:

> "An important aspect of working-class educational failure is understood through the collective volition of the students involved — a dynamic of self-exclusion from education

occurs. For the students, it is an act of resistance and opposition to the official school ideology, offering a separate and vigorous identity involving traditional working-class masculinity, work and values". (Brake, 1985, p. 64).

In the review of literature, this thesis drew the parallel between the school's social division of labour and the school's sexual division of labour, and it was expected that it would also be possible to identify the effects of the latter. The problem occurred in the restrictive nature of the research instrument, as the limited resources and the size of the sample in the present work dictated the expediency of a detailed questionnaire. In comparison, it was possible for Willis to undertake ethnographic research or 'the study of lived meanings' which involved long and careful observation of the classroom, the workplace and the peer-group activities.

In the present study, it was difficult to establish or obtain a measure of the pupils' resistance to gender-differentiation as: (a) the research instrument relied on information supplied by the pupils themselves and (b) there are obvious limits on the extent to which the pupils can express overt resistance, either in their behaviour or in their verbal account of their behaviour. Consequently, the findings can only indicate the respondents' expressed acceptance or rejection of the aspects of the hidden curriculum that they perceive. Nevertheless, a strong tendency towards rejection of school-defined sex-roles emerges. One of the most interesting findings in this respect was the response of coeducated females to the wearing of a school-uniform, where it was revealed that a majority of 34.2%

believed the rule to be unnecessary in comparison to only 12.3% of single-sex school girls. In the previous chapter, it was suggested that this response may be attributed to the coeducated females' competitive approach to clothing and appearance in an environment where daily contact with the opposite sex involves a constant effort to attract attention.

It was also pertinent to the aims of the research to discover that 75.4% of male and 50% of female single-sex school pupils would prefer to be in a coeducational school while only 1.8% of male and 2.6% of female coeducated pupils would prefer to be in a single-sex school. Despite the fact that coeducated pupils perceive many of the school's attempts to channel them into particular sex-roles, it seems that pupils in single-sex schools believe themselves to be even more restricted by school-defined sex-roles. This is evident in the fact that 60.3% of girls see the mixed school as a more challanging academic environment and 74.1% believe that coeducational schools offer a greater range of subjects. The male respondents are more inclined to reject the social restrictions of single-sex schools as indicated by the 82.8% who believe that it is more realistic to have both sexes together and the 76.6% who favour coeducational schools on the basis that there are more opportunities to form relationships with the opposite sex. It may therefore be concluded that in so far as the pupils can express any form of resistance, they disagree with the norms and values of schools that attempt to define their role on the basis of their sex.

(iii) **THE THIRD HYPOTHESIS:** Finally, it was hypothesized that gender-differentiated behaviour in second-level schooling is a consequence of the pupils' tendency to stereotype themselves. It was advanced that the origins of this tendency could be identified in the home-life and the peer-group activities of the respondents. The findings clearly indicate an accepted sexual division of labour in the home of most pupils, with the majority of respondents living in families where the housework is done mainly by females. The pupils own contribution to housework reflects the pattern established by their families as girls are more likely to assist in kitchen-centred tasks and boys most likely to help with outdoor work such as gardening and the provision of fuel. These findings are expected in the light of Kelly et al.'s (1982) research. In addition, the pupils' responses to the statements on home-life reveal that in this sphere of the pupils' lives their attitudes do not contradict this behaviour to the same degree as the discrepancy between behaviour and attitudes in school-life. This finding may support the theory that the pupils will not identify gender-differentiation in the home in the same way as they perceive the different treatment of the sexes in school and consequently, will not tend to avoid stereotyping in expressing their attitudes towards sex-roles in the home, as they avoided the tendency in expressing their attitudes towards sex-roles in the school. Figure 5.2 illustrated the boys' level of support for the assertion that "Mothers of young children shouldn't work outside the home" and it is surprising, although not entirely unexpected, to see that girls are not inclined to disagree with this statement.

Again, in reference to child-rearing, girls were inclined to disagree with the claim that men are as good as women at rearing children, and boys did not make great efforts to refute the girls' belief. On the other hand, it must be noted that girls were very much inclined to support the view that boys and girls should help with the same housework, while boys were unsure of their opinion on this point. Perhaps this finding indicates that one sex, at any rate, also perceives and rejects gender-differentiation in the home. However, the allocation of housework to males and females is an example of gender-differentiation that is imposed by the home rather than a group perspective (e.g. the attitude towards child-care) that develops in the family without conscious decision on behalf of the individual members. Accordingly, the division of labour in the home may be the exception to the latent transmission of a sex-typed perspective and may be a sufficiently overt form of sex-stereotyping to provoke reaction from those who suffer the consequences.

In their leisure interests and their peer-group activity, gender differences are apparent again as boys and girls play different sports, favour different reading material and have widely different notions of each others' preoccupations and capabilities. In fact, the pupils demonstrated a much higher degree of gender-differentiation in response to the five items on the Likert scale that referred to the peer-group than they did in response to the items on school-life, home-life and careers. Both sexes were very much in agreement that girls are more sensitive than boys, while to varying degrees, both sexes believed that girls are more concerned about their personal appearance than boys. It is also revealing to observe that boys

disagreed only slightly with the assertion that boys can voice their opinions better than girls, which must have repercussions in the classroom.

That the home and peer-group influence the behaviour of pupils in school is evident in the percentage of pupils who choose to consult parents and friends about subject choices and career options, in preference to selecting the teacher as the principal advisor. In relation to subject choice, 81.7% of girls and 77.2% of boys seek their parents' opinion before others and, in choosing a career, 70.1% of girls and 71.5% of boys also have their first discussion on the topic with their parents. In this way, the unquestioned gender differences that originate in the home may be transferred to the school in the form of attitudes toward subjects like Home Economics and Metalwork, and in the form of traditional sex-stereotyped career expectations that will also affect subject selection. On the whole, the findings appear to be closely related to the hypotheses as the pupils do exhibit gender differentiated behaviour in the school which can be attributed more to the home, where the pupils are not aware of sex-stereotyping, than to the school where the pupils perceive and reject any attempt to define pupils' roles on the basis of their sex.

THE FINDINGS IN THE CONTEXT OF THE THEORETICAL FRAMEWORK.

The review of the literature that constituted the theoretical framework for this study began with an analysis of the liberal approach to educational inequality. It was shown that the advocates of

this approach were primarily concerned with the two issues of access to education and equality of opportunity within the educational system. Taking subject provision as their starting point, it was noted that researchers in this field have recently turned their attention to aspects of the school's official curriculum that may influence pupils' subject choice and achievement orientation. This research includes Rennie and Parker's (1987) work on the allocation of resources in the classroom, Davies and Meighan's (1975) study of staffing and administration, Sadker and Sadker's (1985) analysis of teacher-pupil interaction and Mahony's (1985) investigation of teachers' expectations for their pupils.

In the present study, equal opportunity within the educational system focused initially upon the subject selection of the pupils and the pupils' reasons for their choices. Here it was revealed that there are sets of subjects associated with each sex such that German, Commerce, Home Economics, Art and Music are female-dominated and Higher Maths, Mechanical Drawing, Metalwork and Woodwork are male-dominated (see Tables 5.9a and 5.9b). The gender differences in subject take-up rates were found to be similar in all school types, despite the wide range of subjects that are available in coeducational community schools. This seemed to suggest that the lack of provision was not solely responsible for the polarization of the sexes and it was conjectured that the findings could be attributed to the coeducational schools' policies of subject allocation. However, further research into the pupils' favourite subjects indicated that the subjects which are traditionally sex-stereotyped are, in many cases, subjects that are very popular in

each case with the associated sex. At this stage of the investigation, it became apparent that the origins of gender-differentiation could not be located in those aspects of the official curriculum that are commonly researched. Unfortunately, an analysis of those which have recently been identified as elements of the official curriculum (e.g. patterns of verbal interaction, distribution of resources in the classroom etc.) was beyond the scope of the research instrument. Similarly, the study of the sex-roles that are defined in textbook images and language was outside the reach of this work.

This chapter has already discussed the necessity of ethnographic research for the study of these elements. Indeed, it was beyond the objectives of this thesis to undertake a detailed analysis of the official curriculum, once it was established that the factors of provision and allocation were not the primary factors in the pupils' subject choice. This was due to the expectation that if any aspect of school-life were to have a significant effect on the pupils' sex-differentiated behaviour, it would be the hidden curriculum. Accordingly, the hidden curriculum, in the form of school rules and extracurricular activities was investigated and it was discovered that this aspect of schooling attempted to impose the school's ideal of appropriate masculine and feminine behaviour. The emphasis on girls' compliance to regulations on clothing and appearance, and the passivity that is imposed on females by the type of sports that are available to girls, indicates that one of the functions of the hidden curriculum is to develop the submissiveness of females so that they may become what Acker (1984) terms "a reserve army of labour" (see Chapter 2 on the socialist perspective). However, unlike the work of

Apple (1982), Willis (1977) and McRobbie (1978), the pupils' resistance to the hidden curriculum could be established only in respect of their expressed acceptance or rejection of the school rules and the type of schooling (i.e. single-sex or mixed education) that they received. It was shown that the pupils expressed dissatisfaction with the application of the rules to males and females but nevertheless, most expressed a preference for coeducational schooling.

According to Willis' resistance theory that was discussed in Chapter 2, the pupils' means of resistance ironically produced the conformity that the school originally attempted to instil in the pupils. On the other hand, the findings of the present study demonstrate that the pupils' home and peer-group develop the very gender differences that the pupils reject in school-related activities. It may therefore be concluded that the review of literature on the theoretical approaches to gender differences served as a useful framework for this research as it determined the areas of investigation, while also facilitating the discovery of unexpected findings. Finally, the theoretical framework provided a context for the findings and enabled an interpretation of the results in the light of previous research.

CONCLUDING COMMENTS

Each of the schools that participated in the survey expressed concern for the problem and looked forward with interest to the findings. It is hoped that the provision of the findings will assist the schools in identifying and adjusting those aspects of the hidden curriculum that transmit sex-stereotyped values. Similarly, the

findings may help each school to examine the development of its ideology for evidence of teachers' notions of masculinity and femininity, which may have become the accepted standard. However, the findings should ultimately provide reassurance for the schools as it is evident that the home and peer-group share a greater level of responsibility for gender differences than the school.

Further research into the home-background may provide a deeper insight into the forms of gender-differentiated behaviour that are evident here and as already indicated, ethnographic research would be particularly useful in identifying the development of the pupils' attitudes and perspectives in this respect. In research of a larger scale it would also be possible to include a social class variable which might reveal a relationship between the type of home (in terms of income, education, etc.) and the type of values that are transmitted. In the event, it may also be possible to identify different types of home-school relationships, depending on the home, which would guide the school in dealing with the pupils' preconceived notions of gender roles.

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APPENDIX

1988 POST-PRIMARY PUPILS SURVEY

1

1

2 3 4

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MAYNOOTH.

This survey is being carried out in the period mid-May to early June 1988 in a number of post-primary schools in the Meath - Kildare - Carlow area.

The purpose of it is to collect information on attitudes and practices among fifth year pupils in relation to subject choice and study patterns, career-planning, extra-curricular activities in the school and leisure activities outside the school.

The results of this survey will be used as part of a study of patterns of pupil behaviour in post-primary schools which is being conducted under the direction of Professor Liam Ryan, Dept. of Social Studies, St. Patrick's College, Maynooth.

Pupils who complete the questionnaire will not be asked to supply their names on the questionnaire so the information will be anonymous and will be treated with strictest confidence.

BACKGROUND INFORMATION

1. Sex: Male ☐ Female ☐ (tick box)

5

2. Date of Birth: _____

6 7

3. What type of area do you come from? (tick box)

1. From the town (where school is situated).	
2. Within two-mile radius of town.	
3. Rural area outside two-mile radius.	
4. From another town. Name:	

8

9 10

4. Parents' Occupation (tick one box for each parent)

(a)

	Father	Mother
1. Employed Full-Time		
2. Employed Part-Time		
3. Unemployed		
4. Engaged in Home Duties		
5. Retired		
6. Permanently Disabled/Ill		
7. Other		

11

12

(b) If you ticked 1 or 2 for either parent, please name

Father's Occupation _____ 13 14

Mother's Occupation _____ 15 16

5. (a) How many brothers and sisters do you have? 17 18

Brothers _____ Sisters _____ 19 20

(b) Where do you come in the family? (if eldest is 1st) _____ 21 22

6. Name of School _____ 23

7. Number of Pupils in Class _____ 24 25

SUBJECTS

8. Please write in the grades that you got in the Inter Cert beside the subjects taken and in the Leaving Cert column, tick the subjects that you have chosen under Honours or Pass according to the paper that you intend to take.

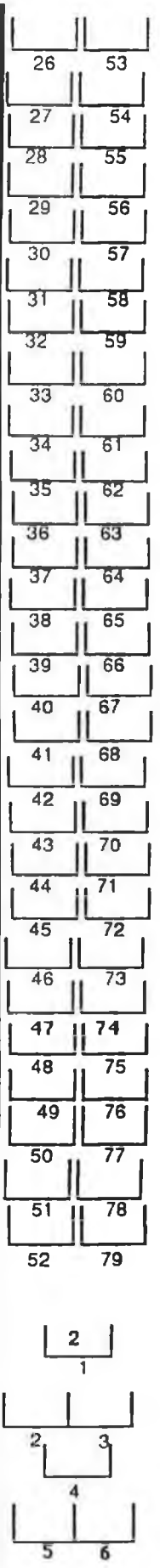
	INTER CERT HONOURS	INTER CERT PASS	LEAVING CERT HONOURS	LEAVING CERT PASS
1 ENGLISH				
2 IRISH				
3 MATHS				
	COMMON LEVEL			
4 FRENCH				
5 HISTORY				
6 GEOGRAPHY				
7 LATIN				
8 GERMAN				
9 MUSIC				
10 ART				
11 HOME ECONOMICS				
12 WOODWORK				
13 METALWORK				
14 MECHANICAL DRAWING				
15 COMMERCE				
16 ACCOUNTANCY				
17 BUSINESS ORG.				
18 ECONOMICS				
19 SCIENCE				
20 PHYSICS				
21 CHEMISTRY				
22 BIOLOGY				
23 APPLIED MATHS.				
24 TECHNICAL DRAWING				
25 MECH. ENGINEERING				
26 OTHER				
27 OTHER				

9. What's your favourite subject? _____

10. (a) Of the subjects chosen for the Leaving Cert, was there any subject that you didn't really want to choose?

Yes ☐ No ☐

If Yes name: _____



(b) What was the main reason why you did not want to take this subject? (tick one box)

1.	Too difficult	
2.	No use at present	
3.	Uninteresting	
4.	No use for future	
5.	Other (specify:	

7

8 9

(c) What was the most important reason for taking it?

1.	It was compulsory	
2.	Restricted by timetable	
3.	Teachers' advised me to take it	
4.	Parents' advised me to take it	
5.	All of my friends were taking it	

10

11 12

11. (a) Is there any subject that you would like to take for the Leaving Cert besides the ones that you have already chosen?

Yes ☐ No ☐

13

If Yes, name: _____

14 15

(b) What is the most important reason why you would like to have this subject? (tick one box)

1.	Useful for future	
2.	It would be interesting	
3.	Useful at present	
4.	It would be easy	
5.	Other (specify:	

16

17 18

(c) What is the main reason why you could not have this subject? (tick one box)

1.	Not available in the school	
2.	Restricted by timetable	
3.	Hadn't taken it at Inter Cert level	
4.	None of my friends were taking it	
5.	Parents' advised me against it	
6.	Teachers' advised me against it	
7.	Other (specify:	

19

20 21

12. Did you discuss your subject choice with any of the following? (tick as many boxes as apply)

1.	Parents	22
2.	Teachers of subjects	23
3.	Career Guidance Teacher	24
4.	Friends in class	25
5.	Friends in school	26
6.	No - One	27

13. The following table contains "Reasons for Choosing Subjects." Please put 1 beside the reason that you consider the most important, 2 beside the second most important and 3 beside the third.

1.	I like the subject	
2.	I like the teacher	
3.	My Father/Mother advised me to take it	28
4.	It will be useful for my career	
5.	It will be useful for life in general	29
6.	My Teacher/s advised me to take it	
7.	It's an easy subject	30
8.	All my friends have chosen it	

14. Do you feel that you are in the right class for your ability?

Yes ☐ No ☐ 31

15. (a) If you were to list pupils by ability in the class, where would you come? (tick one box)

1.	In the top 10%	
2.	In the top third	
3.	About half-way	32
4.	In the bottom third	
5.	In the bottom 10%	

(b) Do you try to keep up with the best pupils?

Yes ☐ No ☐ 33

16. (a) How many times during the year does the school organize general school exams? _____ 34

(b) Have you ever won a prize for your work in any subject? 35

Yes ☐ No ☐

17 (a) **FOR THOSE IN SINGLE-SEX SCHOOLS:**

Would you prefer to be in a Co-Educational school?

Yes ☐ No ☐ Don't know ☐ 36

(b) **FOR THOSE IN CO-EDUCATIONAL SCHOOLS:**

Would you prefer to be in a Single-Sex school?

Yes ☐ No ☐ Don't know ☐ 37

18. Answer both (a) and (b) regardless of your school type.

(a) Put ticks beside any of the following statements that you consider to be true of a Co-Educational school.

1.	It is more challenging to work with both boys and girls	38
2.	It is easier to make friends	39
3.	It is more realistic to have both sexes together	40
4.	There is a wider choice of subjects available	41
5.	There are more opportunities to form relationships with the opposite sex	42

(b) Put ticks beside any of the following statements that you consider to be true of a Single-Sex school:

1.	It is easier to succeed	43
2.	There is less distraction	44
3.	There isn't the daily pressure of trying to deal with the opposite sex	45
4.	There is a quieter atmosphere	46
5.	There is less competition	47
6.	There can be more of a team spirit in class	48
7.	The teachers can give pupils more attention	49

CAREER GUIDANCE

19. (a) To what extent have you worked out what you would like to do after leaving school, assuming you get the exam results that you hope to get?

1.	I have decided on a particular career	
2.	I have two or three options in mind	
3.	It depends on my results	
4.	I don't know yet	

50

(b) Would you like to continue your studies when you leave school?

Yes ☐ No ☐ Don't know ☐

51

(c) Have you discussed careers with any of the following? (tick as many boxes as apply)

1.	Career Guidance Teacher	
2.	Subject Teachers	
3.	Both Parents	
4.	Mother only	
5.	Father only	
6.	Friends	

52
53
54
55
56
57

(d) From the above list, whose advice is the most important to you? _____

58

20. How often have you spoken to the career guidance teacher in the past two years? _____ times.

59 60

SCHOOL ACTIVITIES

21. What sports do you play in school?

1. _____
2. _____

61 62
63 64

22. (a) Is there any sport that you would like to play in school but don't?

Name: _____

65 66

(b) If you don't play this in school, is this because: (tick one box)

1.	It is not available	
2.	It's available but I don't have time	
3.	It's available but clashes with my timetable	
4.	It's only for girls	
5.	It's only for boys	

67

23. (a) Do you have any classes where you learn about life in general? (eg. physical development; relationships etc.)

Yes ☐ No ☐

68

If yes, are these classes (tick as many as apply)

1.	Part of Religion class	
2.	Part of Civics class	
3.	Part of Biology class	
4.	Separate classes	

69 70 71 72

(b) How often would you have this type of class?

_____

73 74

24. (a) In the case of each of the following school rules, tick whether you consider them to be necessary or unnecessary rules.

RULE	Necessary	Unnecessary	Does not Apply
1. School uniform to be worn			
2. Smoking in school forbidden			
3. Talking during class forbidden			
4. Respect to be shown to teachers			

75 76 77 78

(b) What is the most severe punishment for breaking school rules? _____

3 1

(c) Do you agree or disagree with the use of this punishment?

AGREE ☐ DISAGREE ☐

2 3

If disagree, what punishment would you suggest instead?

_____

_____

4

5 6

25. FOR THOSE IN CO-ED. SCHOOLS:

(a) Do the school rules apply equally to boys and girls?

Yes ☐ No ☐ 7

(b) If no, which rules apply more to girls?

1. _____ 8 9
2. _____ 10 11

Which rules apply more to boys?

1. _____ 12 13
2. _____ 14 15

HOME AND LEISURE ACTIVITY

26. (a) How many hours per night (on average) do you spend doing homework/study? _____ hours. 16 17

(b) Do you prefer to study

1. Alone							
2. With one friend		MALE		FEMALE			
3. With a group of friends		MALE		FEMALE		BOTH	

18 19

27. (a) What are your favourite leisure activities?

1. _____ 20 21
2. _____ 22 23
3. _____ 24 25

(b) Do you share these activities with

1. Male friends	
2. Female friends	
3. Both	
4. Neither	

26

28. (a) Do you have a girlfriend/boyfriend?

Yes ☐ No ☐ 27

IF YES

(b) In the following table put 1,2 and 3 (in order of importance) beside the features that you think your boyfriend/girlfriend likes best about you.

1.	Good looking	28
2.	Secure friend	29
3.	Taste in clothes	30
4.	Personality	
5.	Ability to work hard	
6.	Fun to be with	
7.	Intelligent	
8.	Ambitious for future	

29. Name some magazines that you enjoy reading.

1. _____ 31 32
2. _____ 33 34
3. _____ 35 36

30. At home, what housework do you do most often? (tick as many as apply).

1.	Cook meals	37
2.	Set the table	38
3.	Clean kitchen after meals	39
4.	Tidy own bedroom	40
5.	Vacuum clean/Sweep floors	41
6.	Make beds	42
7.	Help with gardening	43
8.	Wash or iron clothes	44
9.	Clean windows	45
10.	Bring in fuel for fire	46
11.	Babysit	47

(b) In your home, is the housework:

1. Done mainly by females (mother,sisters)	48
2. Done mainly by males (father, brothers)	
3. Divided into separate jobs for males and females	
4. All shared by everyone	

31. In the following table
1 = STRONGLY AGREE (S.A.)
2 = AGREE (A)
3 = DON'T KNOW (D.K.)
4 = DISAGREE (D)
5 = STRONGLY DISAGREE (S.D.)

Circle one of these numbers for each of the 26 statements.

	STATEMENTS	SA	A	DK	D	SD	
1.	BOYS AND GIRLS SHARE AN EQUAL INTEREST IN PHYSICS	1	2	3	4	5	49
2.	GIRLS SHOULD NOT STAY OUT AT NIGHT AS LATE AS BOYS	1	2	3	4	5	50
3.	BOYS ARE MORE INTELLIGENT THAN GIRLS	1	2	3	4	5	51
4.	ENGINEERING IS A CAREER SUITABLE FOR BOTH SEXES	1	2	3	4	5	52
5.	GIRLS ARE NOT AS GOOD AT HONOURS MATHS AS BOYS	1	2	3	4	5	53
6.	MARRIED COUPLES SHOULD SHARE THE HOUSEWORK EQUALLY	1	2	3	4	5	54
7.	A BOY CANNOT BE AS GOOD A BABYSITTER AS A GIRL	1	2	3	4	5	55
8.	IT IS BETTER TO HAVE FEMALE PRIMARY TEACHERS THAN MALE	1	2	3	4	5	56
9.	WOMEN SHOULD BE PAID AS MUCH AS MEN IN THE SAME JOB	1	2	3	4	5	57
10.	BOYS CAN VOICE THEIR OPINIONS BETTER THAN GIRLS	1	2	3	4	5	58
11.	FOOTBALL CAN BE PLAYED EQUALLY WELL BY BOYS AND GIRLS	1	2	3	4	5	59
12.	MOTHERS OF YOUNG CHILDREN SHOULDN'T WORK OUTSIDE HOME	1	2	3	4	5	60
13.	BIOLOGY IS OF MORE INTEREST TO GIRLS THAN BOYS	1	2	3	4	5	61
14.	METALWORK IS AS USEFUL TO GIRLS AS IT IS TO BOYS	1	2	3	4	5	62
15.	GIRLS ARE MORE CONCERNED ABOUT THEIR PERSONAL APPEARANCE THAN BOYS	1	2	3	4	5	63
16.	A WOMAN'S CAREER IS AS IMPORTANT AS A MAN'S CAREER	1	2	3	4	5	64
17.	GIRLS ARE MORE SENSITIVE THAN BOYS	1	2	3	4	5	65
18.	BOYS AND GIRLS SHOULD HELP WITH THE SAME HOUSEWORK	1	2	3	4	5	66
19.	MALE NURSES ARE AS GOOD AS FEMALE NURSES	1	2	3	4	5	67
20.	CAREERS WILL BE MORE IMPORTANT FOR MEN THAN FOR WOMEN THROUGHOUT LIFE	1	2	3	4	5	68
21.	HOME ECONOMICS SHOULD BE TAUGHT TO GIRLS AND BOYS	1	2	3	4	5	69
22.	MALE TEACHERS CAN CONTROL CLASSES BETTER THAN FEMALE TEACHERS	1	2	3	4	5	70
23.	WOMEN CAN BE SUCCESSFUL BUSINESS EXECUTIVES	1	2	3	4	5	71
24.	GIRLS AND BOYS ARE EQUALLY COMPETITIVE IN SCHOOL	1	2	3	4	5	72
25.	FRENCH IS MORE OF A GIRLS' SUBJECT THAN A BOYS'	1	2	3	4	5	73
26.	MEN ARE AS GOOD AT REARING CHILDREN AS WOMEN	1	2	3	4	5	74

THANK YOU FOR YOUR CO-OPERATION.