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GENDER DIFFERENCES AND SEXISM

IN ART EDUCATION

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INTRODUCTION

This dissertation is an examination of the extent to which sex differences exist in the attitudes and artwork of adolescent boys and girls. I aim to establish how secondary school pupils view art in relation to the other subjects in their curriculum, noting any discrepancies between the attitudes of boys and girls. I will also discuss possible influencing factors on such attitudes, for example parents, teachers, peers and schools. I will discuss how pupils can often hold a 'gender-typed' perception of a subject such as art and how this is related to stereotypical beliefs about the roles which men and women are supposed to perform in our society.

The purpose of this dissertation is also to examine the notion of sex differences in boy's and girl's artwork. Stereotypes of masculinity and femininity will be traced in the content and form of children's art throughout their artistic development. Sex differences in visual preferences (subject matter, imagery, colours) will also be analysed. Attention will be given to sex differences in artistic ability and also the impact of the environment on sex differentiated visual-spatial ability. Finally, the resulting implications of this study will be discussed. Non-sexist approaches to art teaching will be proposed and recommendations within the subjects curriculum and hidden curriculum will be given. The following is a brief indication of how each

chapter is organised.

Chapter 1 contains a review of the literature. Here the limitations of male and female stereotypes, and notions of sex-appropriate behaviour and the effects of this on the general educational experiences of boys and girls are discussed. The extent to which stereotypes are based on actual established sex differences is examined, attention is given to sex differences in the psychological and cognitive functioning of boys and girls. The various effects of parents and schools on gender roles are explored, both co-educational and single sex schools are included in this. The influence of the teacher in reinforcing and counteracting stereotypes and both the hidden curriculum and subject provision in the school curriculum will be considered. Finally in this chapter, I will describe research conducted into adolescent attitudes towards art as demonstrated mainly by their subject choices.

In chapter 2, I will examine the influence of parents, teachers and peers on pupils' attitudes towards art. I will show how these attitudes are connected with a 'gender-typed' subject image and notions of masculinity and femininity. The role of women artists will be discussed. Stereotypes in the development of children's art and differences in their art ability will be looked at. In chapter 3, I will discuss the procedures I used in conducting my

own research project. This is based on my own teaching experiences and the artwork and responses of the pupils I teach. This supplements my theoretical research in a practical way. In chapter 4, I will give the results of this project, analysing both a questionnaire and my teaching schemes. I will relate what I discover to the findings previously described in chapters 1 and 2. Chapter 5 contains a brief synthesis of results and several recommendations will be made.

CHAPTER 1

GENDER DIFFERENCES AND EDUCATION:

A REVIEW OF THE LITERATURE

Sex Role Stereotypes

What are little girls made of?
Sugar and spice,
And all things nice.
That's what little girls are made of.

What are little boys made of?
Snaps and snails,
And puppy dogs tails.
That's what little boys are made of.

We are all familiar with the above rhyme. Stereotypes about males and females are commonplace in our society and the topic is one of much discussion and debate in psychological and sociological literature. The above lines are essentially clichéd and similar to countless other ready made phrases. But these lines do serve to perpetuate a prejudice against both sexes which is potentially harmful. How this is so, particularly in the field of education, will be examined further on in this chapter. Janie Whyld states that

> Gender stereotyping concentrates on the characteristics which are supposed to go hand in hand with biological sex and the roles which men and women are supposed to perform. (1)

While to some extent these stereotypes do reflect real differences between the sexes, they do not apply uniformly to all males and all females. It is important to separate the real differences from the myths. Mary Cullen discusses the stereotypes formed within our western and "patriarchal" society. "Today's stereotypical male", she describes as, "active, dominant, competitive and aggressive....". (2) The stereotypical female being the antithesis of this is "passive, subordinate, self-effacing and nurturing". (3) From these polar opposites the roles of man, as provider and protector, i.e. "Instrumental" (4) and that of woman, as wife and mother i.e. "Expressive" (5) have been established.

Sex Role Stereotyping and Education

Stereotyping features strongly in an Educational context, literature reveals that society's standards, beliefs and prejudices are reflected in and perpetuated by the different educational experiences of boys and girls. Notions of sex-appropriate behaviour and achievements continue to be reinforced by parents, peers and school alike, all three act as important agents in adolescent socialisation. While it must be acknowledged that the very rigid stereotypes described above, have modified and become less extreme over time, Mary Cullen believes that

> the core of the stereotype and the essential nature of the differences in the educational experience of the two sexes have undergone little change. (6)

Arguing from a feminist viewpoint Cullen sees both stereotypes "as less than fully human". (7) The adult who conforms to either of these mutually exclusive stereotypes can never develop sufficiently to achieve her/his potential; a self actualising balanced maturity. An educational system which teaches boys and girls to adopt such roles is not for either gender "non sexist or fully human". Thus these stereotypes are considered harmful, and inhibiting.

Over the past two decades, much attention has been given to the problem that adolescent girls are experiencing within the educational system:

> A conflict between the awareness of their potential and aspirations as individuals and their awareness of social pressure to conform to a stereotype of femininity which rejects much of that potential and aspiration as unfeminine. (8)

Twenty years ago the differences existing between boys' and girls' experiences of school was not given much consideration, nor was it perceived to be a problem. For centuries past, women were deemed to be intellectually and morally inferior to men. Thus educational thinkers saw women's education as relative to men's, and as preparation for quite a different role in life. This policy can be traced throughout history from Aristolle to Rousseau, and even in our own "modern" educational system, differences in policy persist albeit in a much more subtle form through what has come to be called the Hidden Curriculum. This is believed in some part

to explain what Katherine Clarricoates deems, "the persistent failure of state schooling to radically improve the chances in the lives of women in general" (9). This argument is not bias towards one sex only, sex role stereotyping places restrictions on both sexes, and it is important to note that subtle, discrimination within both the formal and the hidden curriculum is also directed at boys e.g. in the lack of general encouragement and emphasis placed on their personal and aesthetic development. Sexual stereotyping is thought to be a major contributing factor affecting the career/occupational expectancies of adolescent boys and girls. Literature reveals that sex-role differentiation through sex-typed and stereotyped experiences at school causes differences in male/female subject preferences, and career intentions. These will be fully examined in the next section.

Finally in concluding this section, it is hopeful to note that although sex-role stereotypes are acquired at a very early age and are strongest in the attitudes of young children, they become much less rigid in adolescent. Thus secondary school teachers can do much to counteract any previously acquired beliefs and attitudes which may otherwise prove inhibiting to their pupils. As John Pratt states

> It is surely a task of education to enable pupils to consider, question and confront these pressures and only then, to decide whether or not they wish to make traditional or non-traditional choices. (10)

Accounting For Sex Differences

The nature of sex role stereotyping, the polarised attributes associated with men and women, and the effect of this on the educational experiences of both sexes have so far been examined. But an important question has arisen, to what extent have these stereotypes been founded in real sex differences? Many studies have been conducted into differences in cognitive and psychological functioning ability and also value differences, and social behaviour differences between the sexes. Psychologists have agreed that there are more commonalities in the behaviour and ability of girls and boys that there are distinctions. Janie Whyld states

> There are relatively few well-established psychological differences between the sexes, but many similarities, and there are no characteristics which always apply to one sex but never to the other. (11)

Despite this, distinctions do exist and while there may be differences, what is important is the significance we attach to them and our interpretation of them.

> "Masculine" and "feminine" characteristics are best seen as metaphors, culturally evolved interpretations of physiological differences, which vary over historical and social circumstance. (12)

Innate Versus Learned Differences

A large number of variables are thought to contribute to sex differences, and as in many other areas of debate over human characteristics e.g. the study of intelligence, arguments have been strongly put forward both in favour and against both sides of the Nature Versus Nurture debate. But findings seem to support a conclusion that some differences between the sexes have a biological or genetic base (nature), on which social learning of sex typed behaviour elaborates, (nurture). As Hannan and Breen have stated

> The literature is in general agreement that whatever innate differences in personality and ability may exist between the sexes they are impossible to abstract from socially learned and reinforced differences. (13)

Schlegel and Barry have warned of the dangers of supporting one side too strongly to the exclusion of the other position, when there is supportive evidence for both. "Thinking in terms of nature versus nurture" they say, is nowhere more mischievous, than in the study of sex differences" (14) With regard to differences in cognitive and psychological functioning, psychologists such as Astin and Maccoby and Jacklin are in agreement over the following which they found from research studies to be fairly well established:

1. Boys and girls do not differ systematically on measures of total cognitive ability i.e. I Q. tests, but that there are differences in certain aspects of overall ability.

2. Girls have a superior verbal ability. This sex difference is relatively small until adolescence when it increases sharply.

3. Boys excel in mathematical ability, this difference again develops during early adolescence where this ability increases at a faster rate than in girls.

4. Boys have greater visual-spatial ability. Male superiority on visual-spatial tests is found consistently in adolescence and adulthood but not in childhood. This fact has considerable implications for the study of sex differences in art ability which will be discussed in Chapter Two. Further implications concerning this disparity is found in Hannan and Breen's comment on Astins' findings

> In general of all three aptitudes (Math, Verbal, Spatial), spatial relations emerge as one of the most consistent and strongly differentiating aptitudes between the sexes. (15)

5. Males are more aggressive verbally as well as physically. These differences are evident as early as two years of age. (16)

It is interesting to note that studies which have examined genetic, hormonal or differential brain development, as possible determinants of different cognitive functioning between the sexes are, as yet inconclusive. As to how large a role culture plays in determining sex differences, Schlegel and Barry state

> Sex difference cuts across a wide range of societies. As it occurs in sexually egalitarian as well as male-dominant societies.... it is unlikely to be strictly "cultural", that is a pattern that each culture or each cultural tradition invents for itself or borrows from its neighbours. We suggest that the difference is a feature of our species....(17)

Psychological research has also found certain sex differences to have no biological basis, but which are beliefs, many the result of stereotyping,

1. That girls are more social than boys.
2. That girls are more suggestible than boys.
3. That girls have lower self-esteem than boys.
4. That girls are better at rote-learning and simple repetitive tasks.
5. That boys are more analytical than girls.

   > Overall, boys and girls do not differ on tests of analytic cognitive style or logical reasoning, although boys do excel if the task requires visual / spatial abilities.

6. That girls lack achievement motivation, yet it is true they have been taught to aspire to lower and to different goals than boys. (18)

Socialisation: Parental Influence on Sex Roles

I have already examined the characteristics of sex roles adopted by men and women in our society. Here the various reasons for the sex typing process will be examined. Socialisation into gender roles begins with the identification of physiological sex at birth. From the child's earliest experiences, learned gender attributes have a central place in the child's

discovery of what or who it is. "Children recognise from an early age that their sex is central to the way they think about themselves" (19)

As early as five years of age most children have strong sex-typed views on appropriate behaviour and expectations. Parents own often unconscious attitudes are conveyed to the child, through their treatment of it and even in the case of 'liberal' parents, traditional roles are difficult to escape.

Various theories as to how the sex typing process occurs, include:

1. The Biosocial theory; this emphasises the biological developments before a child is born - how the parents will react when deciding how to socialise the child.
2. The socialisation process itself.
3. Sex typing is claimed by psychoanalytic theorists to be the result of identification with the same sex parent.
4. The social learning theorists offer two explanations for the acquisition of sex-typed behaviours.
   (a) Direct tuition (by reinforcement/punishment).
   (b) Observational learning
5. The cognitive developmental theorists say that the course of sex-role development will depend in part on the child's' cognitive development. (20)

It is evident that from the earliest years parents have a vital role to play in shaping their childs' perceptions of themselves and others and determining their attitudes and beliefs concerning sex roles in society. Throughout their school years, both at primary and secondary level, parents will continue to act as an important influence on their children. At secondary level this will affect as we shall see aspects of school life such as subject choice and attitude towards certain subjects.

The School's Effect on Gender Roles

The different educational experiences boys and girls receive in preparation for different adult roles has been briefly discussed. Much research has been conducted, examining the effects of single-sex schooling and co-education on both sexes. The belief that the two sexes have different educational needs seems to have become outmoded. Despite this however sex differences at post primary level still persist. In their study Hannan et. al, estimated that in the early 1980's two thirds of the female cohort but only half of the male cohort entering post primary education went on to do the Leaving Certificate Examination. Girls were also far more likely to be in secondary school and generally seemed to attain better results in the Leaving Certificate Examination (see Appendix to chapter 1, table 26 (a) to 27 (f)). Yet there were more boys in third level education especially in scientific and technology related areas.

TABLE 1

The No. of Candidates taking Public Examinations in 1980

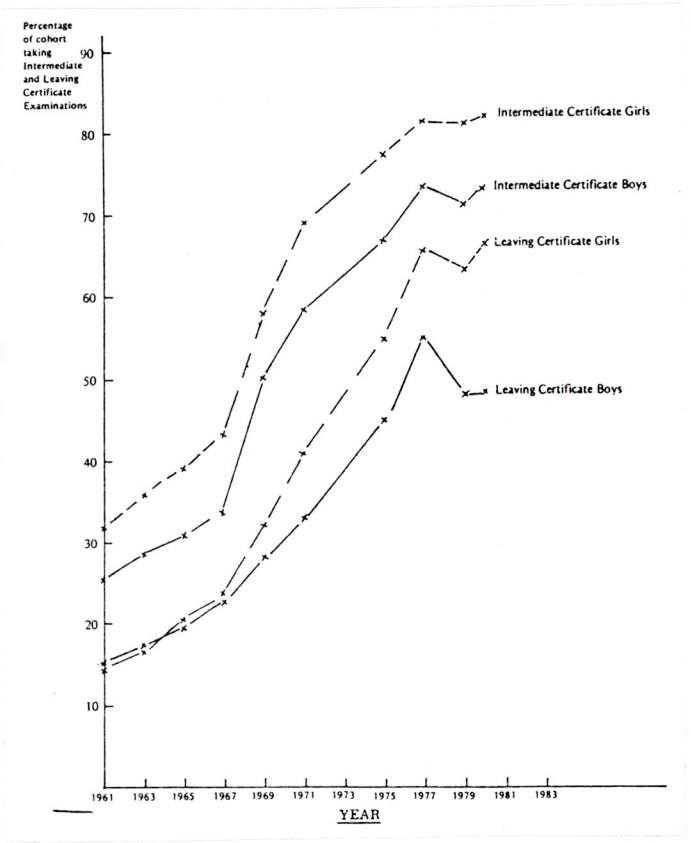
	Male	Female	Total
Intermediate Certificate	24,500	26,500	51,000
leaving Certificate	16,000	20,600	36,600

Source: Annual Statistical Reports of the Department of Education, Government Publication Office, Dublin 1.

In figure 1, observe that the above figures form part of an overall pattern which Hannan and Breen have traced from 1961 to 1979.

FIGURE 1.0

Percentage of Boy's and Girl's Cohorts who sat the Intermediate and Leaving Certificate Examinations in 1961 to 1979.



Source: Annual Statistical Reports of the Department of Education. Quoted in Hannan and Breen Schooling and Sex Roles (Dublin: ESRI) pp. 7.

Note: Maximum cohort size estimated from no's. of male and female pupils of 12 years old 3 years previous to year of Inter Cert and 5 years previous of year of Leaving Certificate.

The most recently published figures i.e. for 1991, show that the difference between the number of males and females taking the Intermediate Certificate Examination has lessened considerably, there is almost an equal number of both sexes taking the exam. The figures which show the numbers taking the Leaving Certificate are consistent with those of the earlier studies, there is a higher number of girls taking the exam. Note also the large increase in the number of both sexes taking both examinations from the 1980 to the 1991 figures.

TABLE 2

The No. of Candidates who were examined at the Certificate Examinations in 1991.

	Male	**Female**	**Total**
Intermediate Certificate	30,045	30,349	60,394
Leaving Certificate	26,603	29,038	55,641

Source: Examination Statistics issued from The Statistics Section of The Department of Education, Dublin 2.

From the above figures we would expect to find a proportionate number of either sex represented at third level colleges. In table 3 Hannan and Breen's findings show the discrepancy between male/females attending university. Note particularly the figures for each faculty.

TABLE 3

Ratio of Male to Female First Year Students and Graduate and Postgraduate Numbers in the Different University Faculties in 1976/77.
Number of Males per Single Female

Faculty	1st Year Entrants 1976	Undergraduate Degrees 1976	Postgraduate Degrees 1976
Arts and Soc. Sc	.617	.575	1.436
Econs, Soc.Studies, Comm	2.645	3.645	14.500
Law	2.370	2.338	2.000
Engineering/Arch.	15.122	16.190	43.000
Medicine/Dentistry	1.371	1.886	6.500
Vet/Ag. Sc/ Dairy Sc.	6.929	18.750	26.000
Total	**1.341**	**1.324**	**2.018**

Source: Relevant HEA reports quoted in Hannan and Breen Schooling and Sex Roles (Dublin: ESRI) pp. 366

In a more recent survey of participation in higher education undertaken in 1988 by Patrick Clancy a significant gender disparity in the participation in, and also admission to, higher education was found to be still in evidence. Clancy found that

> In relation to the extent of participation it was noted that females still constitute a minority (48%) of new entrants in spite of the fact that a higher percentage of females sit the Leaving Certificate each year. This gender differential cannot be accounted for by differences in the level of prior academic attainment since female new entrants had a higher level of attainment than males. (21)

Table 4 shows the sex composition of the student intake, to 36 Irish Colleges. Note that in 1980, 46% of the new entrants were female, this has risen to 48% in the present study. It is also interesting to observe that the distribution by sex, varied by college, for example in contrast to the earlier studies, females now constituted the majority of new entrants (52%) to the university sector. They were also more highly represented (58%) at St. Patrick's College, Maynooth, the Colleges of Education (73%) and two of the Colleges of Art, Males were found to be more highly represented (67%) in the Royal College of Surgeons, and in nine of the RTC's and three DIT Colleges. (22)

TABLE 4

NUMBER OF FIRST YEAR STUDENTS AND NEW ENTRANTS TO HIGHER EDUCATION 1986 BY SEX, COLLEGE AND COLLEGE TYPE

College	Number of 1st Year St.	New Entrants				Total
		Male		Female		
	N	N	%	N	%	N
University Sector						
University College Dublin	2,661	1,188	51.3	1,129	48.7	2,317
University College Cork	1,546	627	46.1	732	53.9	1,359
University College Galway	1,086	443	46.0	519	54.0	962
Trinity College Dublin	1,453	595	48.0	644	52.0	1,239
St. Patrick's College, Maynooth	539	181	41.9	251	58.1	432
Royal College of Surgeons in Ireland	128	81	66.9	40	33.1	121
TOTAL	7,413	3,115	48.4	3,315	51.6	6,430
National Institutes for Higher Education						
Limerick	687	450	70.2	191	29.8	641
Dublin	548	270	53.4	236	46.6	506
TOTAL	1,235	720	62.8	427	37.2	1,147
Dublin Institute of Technology						
College of Technology, Bolton St.	508	402	84.8	72	15.2	474
College of Technology, Kevin St.	506	313	65.3	166	34.7	479
College of Commerce, Rathmines	451	231	54.5	193	45.5	424
Dublin College of Catering, Cathal Brugha St.	467	86	19.3	360	80.7	446
College of Marketing and Design, Mountjoy Sq.	416	180	47.9	196	52.1	376
TOTAL	2,348	1,212	55.1	987	44.9	2,199

TABLE 4
Continued

NUMBER OF FIRST YEAR STUDENTS AND NEW ENTRANTS TO HIGHER EDUCATION 1986 BY SEX, COLLEGE AND COLLEGE TYPE						
College	**Number of 1st Year St.**	**New Entrants**				**Total**
		Male		**Female**		
	N	N	%	N	%	N
Regional Technical Colleges						
Athlone	624	345	55.9	272	44.1	617
Carlow	813	488	63.0	287	37.0	775
Cork	846	558	68.7	254	31.3	812
Dundalk	572	316	58.2	227	41.8	543
Galway	794	355	47.7	390	52.3	745
Letterkenny	322	154	50.3	152	49.7	306
COACT	664	396	62.3	240	37.7	636
Sligo	471	232	52.0	214	48.0	446
Tralee	317	158	51.1	151	48.9	309
Waterford	969	511	55.0	418	45.0	929
TOTAL	6,392	3,513	57.4	2,605	42.6	6,118
Colleges of Education						
St. Patrick's, Drumcondra	268	49	18.3	219	81.7	268
Mary Immaculate, Limerick	249	41	16.5	207	83.5	248
Thomond, Limerick	178	128	77.1	38	22.9	166
3 Sion Hill Colleges	102	6	6.3	90	93.7	96
Mater Dei Institute	52	12	24.0	38	76.0	50
St. Mary's, Marino	31	12	38.7	19	61.3	31
Church of Ireland, Rathmines	29	3	10.3	26	89.7	29
St. Angela's Sligo	28	0	0	28	100.0	28
TOTAL	937	251	27.4	665	72.6	916
Other Colleges						
National College of Art and Design	121	41	38.0	67	62.0	108
Crawford College of Art and Design, Cork	70	13	19.4	54	80.6	67
Dun Laoghaire School of Art and Design	88	42	54.5	35	45.5	77
College of Industrial Relations	63	41	66.1	21	33.9	62
Shannon College of Hotel Management	37	16	45.7	19	54.3	35
TOTAL	379	153	44.0	196	56.0	349
TOTAL ALL COLLEGES	18,704	8,964	52.2	8,195	47.8	17,159

Source: Taken from Patrick Clancy. Who goes to College? A National Survey of Participation in Higher Education : HEA, 1988. pp. 12 and 13.

With regard to the gender differentials in field of study. Clancy states that

> The proportionate representation of females in technology the most sex-differentiated field of study, has not changed since 1980..... However, flames participation has increased in some fields, notably in law and medicine, where females now constitute the majority of new entrants. Furthermore, females continue to constitute the majority of new entrants into science. (23)

TABLE 5

FIELD OF STUDY OF ALL NEW ENTRANTS TO HIGHER EDUCATION IN 1986 AND 1980 AND PERCENTAGE CHANGE IN ENROLMENT BETWEEN 1980 AND 1986

Field of Study	1986 New Entrants				1980 New Entrants		% Change 1980-86
	Males	Females	TOTAL		TOTAL		TOTAL
	%	%	N	%	N	%	%
Humanities	10.9	21.2	2,720	15.9	1,955	14.6	+39.1
Art & Design	2.4	5.7	683	4.0	506	3.8	+35.0
Science	12.9	16.6	2,531	14.8	1,898	14.2	+33.4
Agriculture	2.3	0.7	265	1.5	230	1.7	+15.2
Technology	40.4	7.6	4,240	24.7	3,364	25.2	+26.0
Medical Sciences	3.2	4.1	626	3.7	620	4.6	+ 1.0
Education	2.8	8.1	916	5.3	1,175	8.8	–22.0
Law	1.4	1.8	273	1.6	266	2.0	+ 2.6
Social Science	1.8	5.9	639	3.7	371	2.8	+72.2
Commerce	20.7	24.0	3,817	22.3	2,736	20.5	+39.5
Hotel, Catering & Tourism	1.2	4.2	449	2.6	239	1.8	+87.9
TOTAL %	100.0	100.0	-	100.0	-	100.0	+28.4
TOTAL N	8,964	8,195	17,159	-	13,360	-	-

Source: Patrick Clancy, Who goes to College? HEA. 1988. pp. 15.

Tracing the origins of these findings to Post-Primary School experiences Hannan and Breen found that although girls have in general a more positive view of their educational experience and of their relationship with their teachers and school, they have internalised significantly poorer images of their own performance abilities than have boys even at the same level of actual performance. They also have more negative views of the usefulness and intrinsic value of the "more difficult" i.e. scientific and mathematical subjects. Yet how can these disparities be accounted for?

Gender difference is still used as a basis for differentiation in the allocation, provision and the choice of subjects in both co-ed and single sex systems. These different curricular allocations serve to endorse and reinforce traditional gender role differences. Often boys and girls are filtered into subjects which are congruent with their gender role. Lynch says that

> Girls attending second-level schools be these single sex or co-educational are still much more likely than their male counterparts to study a language, humanities or arts subjects. Equally boys are considerably more likely to study a physical science or technical subject than their female colleagues. (24)

Differences were also found to exist in the way boys and girls schools operated. Boys' schools tended to specialise, especially in clusters of science and mathematics subjects. Thus they were found to have a more narrow and deep curriculum, this would also ensure greater opportunity to enter third

level courses, such as engineering, architecture, or science, etcetera. Girls' schools tended to teach a broad group of unrelated subjects thus concentrating on the development of the whole intellectual person.

In 1989 Kathleen Lynch conducted new research into this area and found that much had changed concerning the formal curriculum since Hannan and Breen's studies in the 1970's.

> The differences between male and female single sex schools are increasingly less evident in the area of formal curriculum provision. Both male and female schools have become increasingly orientated to technical knowledge. (25)

Lynch found that this re-orientation has occurred at the expense of the humanities, languages and arts subjects for both sexes. Thus the formal curriculum offered to girls and boys schools is much more similar than fifteen years ago. It has become much less-stereotyped, and girls seemed now to be much less disadvantaged in the formal academic curriculum. Evidence exists which verifies that girls may be even more successful than males in the formal academic system as a whole (with the exception of their performance in higher level mathematics in the Leaving Certificate). Contrary to the findings of Hannan et al in 1983, Kathleen Lynch established that girls schools do not have a "lower achievement ethos" and that in relation to the formal curriculum data indicates that girls' schools are more

attainment-orientated in ethos than their male counterparts. Yet traditional patterns of entry into higher education courses had changed to a much lesser degree, this also was evident in career/occupational intentions. If the curricula of girls schools is less stereotyped why then are traditional perceptions of sex roles and inequality being reproduced in schools? Kathleen Lynch says that the answers lie in the "hidden curriculum" of both schools.

> Even when formal curriculum provision has become relatively egalitarian (in gender terms) the extra-curricular life and hidden curriculum of the schools may still be reproducing sex-stereotypes in very explicit ways. (26)

The Hidden Curriculum

In her book The Hidden Curriculum Kathleen Lynch (27) found that without doubt differences in emphasis on particular aspects of individual development existed in different types of schools. She found that girls' schools are consistently more likely than boys' to emphasise the religious aesthetic and personal development of their pupils. Illustrating this point girls' schools were most likely to allocate time for extracurricular activities such as speech and drama singing and typing. Religious studies and discipline were also found to be a higher priority in girls' schools than in boys'. Moral attitudes and values were more frequently reinforced. Thus the ethos of these schools reflect the traditional model of woman as a refined and cultured person.

In contrast to this boys' schools are much less likely to offer a personal development programme or to formally allocate time each week to pastoral call. Extra time in timetables tended to be given to sports and physical education, many boys' schools making this a compulsory subject. Thus the traditional male stereotype is passed on to pupils. In terms of stereotyping it is clear that the hidden curriculum is working against both sexes but girls are experiencing a confusion in their overall education and are provided with two contradictory role models:

> ...On the one hand they are educated to compete and succeed in the formal educational system with a view to gaining the labour market advantages that go with it. On the other hand they are socialised to be the guardians of the moral order, to be unselfish, non assertive and appreciative of the cultural rather than purely material products of the age. (28)

Co - Education

The influences of the hidden curriculum in co-educational schools seems to produce just as marked differences. Hannan and Breen also find

> ....that pupils in a mixed school tend to reaffirm the traditional sex role stereotypes in their choice of subjects.... Also the saliency of sex-role identity formation appear to be greater than in single sex schools. (29)

Co-Education does not seem to signify equality of policy and practice between the sexes. It has been argued that girls perform less well in co-

educational environments than their male counterparts especially in mathematics but Hannan et al. found this situation in Ireland to be less true than in other countries,

> Most recent British research work in this area indicates considerable dis-quiet about the "polarisation effects" of co-educational schools on the attitudes, aspirations, subject choices and examination performance of boys and girls (Dale 1974. Department of Education and Science 1975, Ormerod, 1981). Our results do not support these conclusions. In fact girls in co-educational schools in Ireland appear to be at somewhat of an advantage compared with British girls in those respects. (30)

Teacher Influences

Hannan and Breen conclude that teachers can play a huge role in counteracting gender stereotypes, as adolescence is a time when pupils will question their previous experiences, attitudes and behaviour. But teachers must be aware of their own attitudes and expectations, they should take responsibility for the role they play in shaping the views of pupils and influencing choice. John Pratt states:

> Many teachers recognise that pupils bring stereotypes with them into school and that teachers sometimes accept or even encourage these, even if they believe them to be inappropriate. (31)

Research studies found that many teachers also "show marked disparity of attitudes depending upon the subject they teach, suggesting pupils will receive conflicting impressions". (32) Teachers must always be aware of stereotyping in their day-to-day interaction with their pupils. According to social learning theories, they act as role models for their pupils. Their use of language and the quantity and quality of interaction time spent with boys and with girls in their classes must be considered by teachers. Hannan and Breen suggest that two thirds of the teachers interaction time is spent with boys in co-ed classes and that two thirds of student initiated interaction is from boys. Catherine Clarricoates states

> It is of paramount importance that teachers assess their interaction with pupils as they may unconsciously be perpetuating such a superior/inferior relationship among pupils particularly by perceiving girls and boys as different and inequal groups. (33)

Sex Differences In Subject Choice -

Measuring Adolescent Attitudes Towards Art.

In this section I propose to determine pupils attitudes to certain subjects in the post-primary curriculum, as reflected in their subject choice. I intend to lay particular emphasis on art and pupils' attitudes to art in relation to other subjects. The factors influencing subject choice will also be examined.

Nowhere in the school curriculum are the sex-differentiated attitudes of boys and girls more apparent than in the area of different subject take up between the sexes. It appears that even now when the gap between the formal curriculum assigned to boys and girls is lessening, pupils themselves are to a large extent following traditional patterns of subject choice. It has been found that the greatest differences lie not in the provision nor in the allocation but in the pupils' choice from various subject options. Hannan and Breen identified the following factors which are deemed to account for sex differences in subject choice:

1. Differential occupational and career expectations amongst boys and girls, these often conform to stereotypes which have been examined. This factor also includes differences in utilitarian values i.e. usefulness to themselves.
2. Differences amongst pupils in educational performance in crucial subjects, also their sense of mastery over the subject.
3. "Significant other influence on choice and aspirations particularly parents, teachers and peer group. (see Table 6)
4. Sex differences in educationally relevant values, beliefs and attitudes.
5. The school ethos and teacher support influences. (34)

TABLE 6

Percentage of Boys and Girls who Regard Certain Significant Others as Very Important, Important, and Non Important in Deciding on Leaving Certificate Subjects (Controlling for non-response and presence of Guidance Counseller in the school).

	Career Guidance Counseller	Ordinary Teachers	Principal	Mother	Father	Friends
Boys						
Very important	10.1	13.0	8.7	30.5	22.7	6.5
Important	23.3	26.4	18.9	44.0	42.5	33.9
Not Important	68.5	60.1	72.4	25.6	34.8	59.5
(N)	(572)	(599)	(609)	(630)	(617)	(613)
Girls						
Very important	13.0	14.1	8.7	44.0	26.7	10.6
Important	24.4	30.9	24.3	42.4	42.6	41.4
Not Important	62.6	55.0	67.0	13.6	30.7	47.9
(N)	(1,008)	(1,034)	(1,047)	(1,083)	(1,095)	(1,072)
Total						
Very important	12.0	13.7	8.7	39.1	25.2	9.1
Important	23.3	29.4	22.3	43.0	42.6	38.7
Not Important	64.7	56.9	69.0	18.0	32.2	52.2
(N)	(1,580)	(1,633)	(1,656)	(1,713)	(1,647)	(1,685)

Source: Leaving Cert Pupils' responses quoted from Hannan et al Schooling and Sex Roles pp. 414 (1983)

An analysis of these figures indicates that girls place a higher emphasis on the opinions of both Guidance Counsellors, teachers, parents and friends than boys, in their subject choice decisions. Both boys and girls have equal regard for the school principals' opinion, 8.7% considering this very

important. It is interesting to note that both boys and girls place a higher emphasis on their ordinary teachers' opinion rather than on their Careers Guidance Counsellors'. Parents' opinions seem to be considered the most important of all significant others.

Having considered these factors, we now look to actual differences that exist in subject choice. A number of subjects show clear sex differences in take-up between boys and girls. These sex differences tend to be greater at Leaving Certificate than at junior level. Kathleen Lynch has shown how girls schools tend to encourage the developing of their pupils' "appreciation of the arts and aesthetics". It is not surprising then to find that art, together with home economics, music and to some extent modern languages are taken disproportionately by girls. The sciences and technical subjects are taken disproportionately by boys. It is worthwhile to note that major differences are found in the male-dominated subjects, notably science and technical subjects, rather than in the female dominated ones. If we examine the following figures, (see Table 7) we can see that these points are supported and we can observe the position of Art in relation to the other subjects.

TABLE 7

No. of Pupils taking the Stated Subject by Category of School at Leaving Certificate (Senior Cycle). 1988/89.

Subject	Single Sex Schools		Mixed Schools		Total
	Boys	Girls	Boys	Girls	
Maths (H.L.)	8,327	5,479	5,844	3,464	23,114
Maths (L.L.)	16,145	26,397	18,818	18,884	80,244
Physics	8,805	3,349	7,602	2,194	21,950
Biology	9,361	20,258	10,434	16,333	56,386
English (H.L.)	13,567	18,566	10,297	10,768	53,198
Irish (H.L.)	9,246	12,868	6,423	7,725	36,262
Engineering	536	-	7,631	144	8,311
Technical Drg	3,486	4	11,523	475	15,488
Building Const.	1,798	4	7,823	195	9,820
Home Econ (S.S.)	731	14,926	2,018	13,877	31,522
Home Econ (Gen.)	147	2,471	130	1,706	4,454
Art (Incl. Craft)	**2,890**	**7,286**	**4,152**	**5,656**	**19,984**
Music A + B	169	1,585	240	647	2,641

Source: Annual Statistical Reports of the Department of Education, Government Publications Office, Dublin 1.

It is significant to not that a much greater number of boys take art at senior level in co-ed schools rather than in all boys schools. The disparity between the number of boys and girls taking art in co-ed schools in much less than in single sex schools. Interestingly the number of girls taking art in single sex schools is greater than their co-ed peers. It is clear form these figures that a conventional bias remains with more girls choosing art than boys. This is substantiated by the more recent examination figures for 1991.

TABLE 8

No. of Pupils taking Art. (Ireland 1991)

		Entries	Passes	Grade C and above %
Intermediate Certificate:	Boys	9,645	8,913	48
	Girls	14,736	14,038	55.4
Leaving Certificate				
Ordinary Level:	Boys	1,644	1,499	47.7
	Girls	2,578	2,392	51.6
Higher Level:	Boys	2,073	1,907	57.5
	Girls	3,725	3,558	63.4

Source: Quoted from 1991 Examination Results issued by the Statistics Section of Department of Education, Dublin 1.

Note: The percentage breakdown of candidates by grade awarded in Art can be found in Appendix 1, tables 26(a) and 27(f).

From these figures it is evident that more girls are choosing art both at junior and senior level, and that a higher percentage of girls are awarded grade C or upwards. It is also evident that a greater percentage of girls choose to sit the higher level papers in the actual art exam i.e. 59.1% girls compared to 55.7% of boys. These figures are also comparable with corresponding British figures.

TABLE 9

No. of Pupils taking Art (Britain 1980)

		Entries	Passes	Grade C and above %
'O' Level	Boys	52,765	30,357	57.53
	Girls	68,435	43,699	63.85
'A' Level	Boys	9,111	6,354	69.74
	Girls	14,581	10,330	70.85

Source: DES, Statistics of Education (1980) from Jennifer Hatton Art in Sexism and The Secondary Curriculum ed. Janie Whyld (London: Harper Row 1983) pp.228.

Jennifer Hatton states that it is certainly a fact "That art, in common with other arts subjects is taken by more girls than boys up to 'A' level and more successfully". (35) From both the above sets of figures it is possible to conclude that girls have a more favourable attitude towards art than boys especially at senior level. This would seem to be supported by Hannon and Been's assessment of art down through the years:

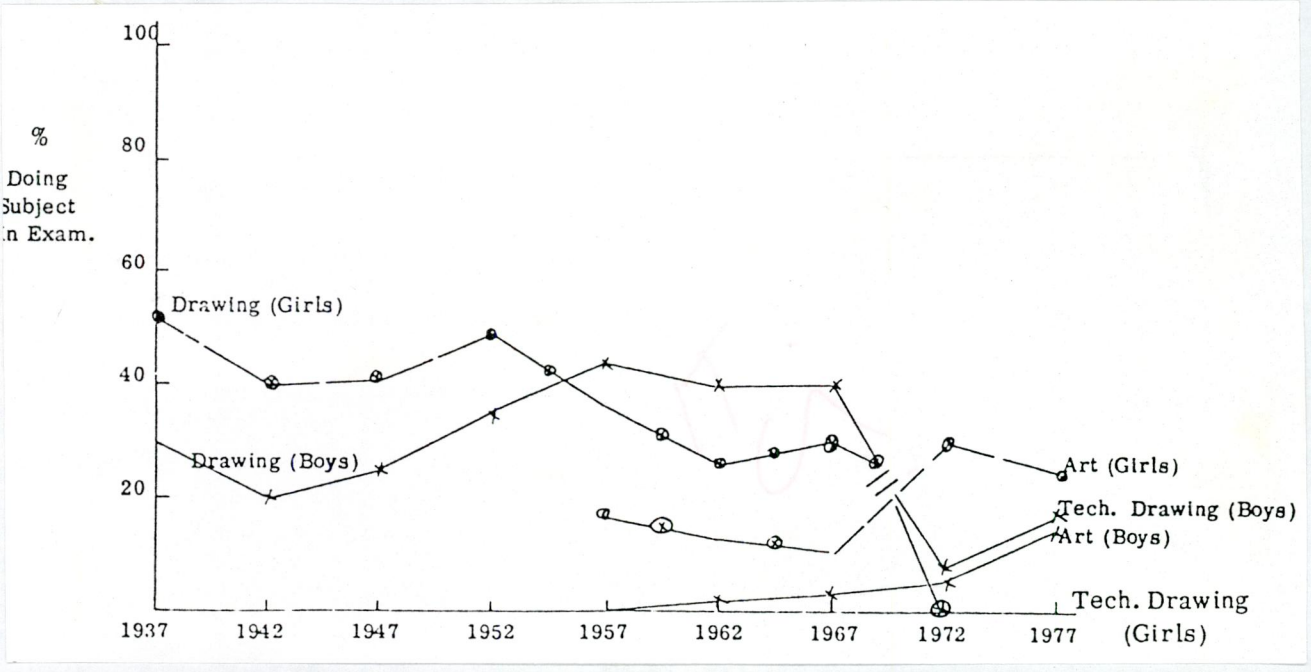
> Art was first introduced in the mid 1950s and has always been dominated by girls, especially since the removal of drawing from the Examination Curriculum. (36)

Before the 1950s 'Drawing' had occupied the present place of art in the Irish secondary school curriculum. This subject has shown no consistent sex bias in take up until the 1950s when Art was introduced and incorporated some of the previous drawing syllabus, Art then became predominantly female.

This substantial sex bias became even more apparent after 1968-69 when the curriculum was changed. It diverged into an almost completely male dominated mechanical drawing option on the one hand and on the other a somewhat less marked but still female dominated 'Art' option. "Mechanical drawing and art had in fact grown to be substantially sex differentiated in the 1970s". (37) Although this difference began to decrease in the late 1970s and early 1980s. It is important to note that the differences in numbers of boys and girls choosing to study art as an option has never been as great as the difference in those choosing other subjects such as home economics and music.

FIGURE 1.1

Relative Proportion of Boys / Girls doing Drawing, Technical Drawing and Art. 1937-1977



Source: Department of Education Statistical Report for Relevant Years quoted from Hannan and Breen Schooling and Sex Roles p.103

From these figures we conclude that girls have in general a more favourable attitude towards art than boys. This is also substantiated in the findings of Elliot Eisner (38), who also conducted research into adolescent attitudes towards art, stating that "The need to understand what students know about the visual arts and how they feel about them is equally as real". (39) He devised the 'Art Attitude Inventory Test' to measure just such attitudes. This test deals with voluntary activity in art, with satisfaction in art, with self-estimate of art ability and finally with attitude towards art and artists. Eisner used these tests to find differences between the performance of boys and girls, and also to determine, from their response to particular items on the test, the role of art in their lives. I have discussed the discrepancies between the take up of art by boys and girls as a measure of their attitudes towards the subject, since as Eisner states of his subjects:

> Students . . . were all enrolled in art classes at the time they were tested, and because more of the high schools from which they came required that art be taken, their selection of it is an indication of at least some interest in the subject.

In concurrence with the findings of Hannan and Breen, Eisner's tests indicated that in the performance pattern of boys and girls, "that girls consistently receive higher scores than boys". (41) But why should this be so? why should girls show consistently more positive attitudes towards art than

boys? Eisner doubts that these differences result from differences in the average intelligence of boys and girls. He states that,

> the explanation that seems most reasonable to me is related to cultural expectations for artistic learning. In American culture it is the female who is supposed to be responsive to visual aesthetic qualities. For many segments of the population interest in art for males is something less than masculine. Boys are supposed to be interested in more manly things. (42)

Eisner also believes that,

> these cultural expectations affect the inclination to learn in the visual arts and that the inclination and expectation accounts for the consistently higher scores received by girls. (43)

Eisner concluded also that the attitudes, as measured by his tests, do not change much over time. "Students apparently leave high school and college as they entered with respect to their attitude towards art". (44) So if we conclude that art is considered to be a more "female" subject in secondary level does this follow through in pupil's career / occupational expectations?

Jennifer Hatton tells us that the majority of art teachers in secondary schools and colleges in the U.K. are men. (45) Another paradox, in asking the question why do relatively few boys choose the subject at school? She believes, in contrast to Eisner's opinion, that

> the reason is not that art is considered 'sissy' but that is is rarely thought to present any job opportunities for the school leaver (apart form teaching) or to have any intellectual content. It is thought by some to be a mode of self-expression, by others a leisure pursuit, neither having any marketable value or real educational validity. Boys to a greater extent than girls, seeing their lives ahead in terms of a career, give art little serious consideration in school. (46)

Hatton also believes that this attitude has developed due to the changes in art education. These will be examined in the next chapter.

As to why so many girls choose art as a subject, Kathleen Lynch agreeing with Eisner, believes that through education "Women are socialised into a world of personal expression and aesthetic appreciation which is frequently outside the realm of male experience". (47) Although stressing the importance of art, she also describes aesthetic and artistic appreciation as not being "viable commercial propositions". Even if this is not wholly true, it maybe how many perceive art and this view is certainly in concurrence with Jennifer Hatton's reasoning, as to why less boys choose art. Finally, as Jennifer Hatton states,

> Teacher now need to articulate very forcefully the value of an art education which encompasses not only freedom of expression, but also manipulative and design skills which will be of use in many occupations. (48).

Conclusion

In this chapter various aspects of gender differences in relation to education in general, have been discussed. I have examined forms of gender - role stereotyping and the dangers these present to the maturing adolescent. I have also tried to dispel some of the "untruths" created by stereotyping by analysing "real" sex differences and the factors that determine these. All this has been related to the adolescent and his / her experiences of post-primary education. The various sex differences in subject choice were also examined and particular attention was paid to the attitudes of adolescents towards art. Finally I would like to conclude with Schlegel and Barrys' observation that

> gender differences are unlikely to disappear but that need not disadvantage one sex or the other. There does not seem to be any sex difference in the capacity to learn. (49)

FOOTNOTES ~ CHAPTER 1

1. Janie Whyld, ed. Sexism in the Secondary Curriculum (London: Harper and Row, 1983) p.70.

2. Mary Cullen, ed. Girls Don't Do Honours (Dublin Women's Education Bureau, 1987) p.137.

3. Ibid.

4. David Shaffer. Developmental Psychology: Theory, Research and Applications (California: Brooks / Cole, 1985) p.517.

5. Ibid.

6. Cullen, ed. Girls Don't Do Honours p.136.

7. Ibid., p.137.

8. Ibid., p.6.

9. Katherine Clarricoates, "Classroom Interaction", in Sexism in Secondary Curriculum ed. Janie Whyld, p.60.

10. John Pratt "The Attitudes of Teachers" in Girl Friendly Schooling eds. Judith Whyte et al (London: Methuen Press, 1985) p.34.

11. Whyld, Sexism in the Secondary Curriculum, p.9.

12. P. Lee and N. Gropper "Sex Role Culture and Educational Practice", in Schooling and Sex Roles: Sex Differences in Subject Provision and Student Choice in Irish Post Primary Schools Damian Hannan, and Richard Breen, et al (Dublin: ERSI, 1983) p.11.

13. Hannan and Breen, et al Schooling and Sex Roles, p.11.

14. Alice Schlegel and Herbert Barry, Adolescence: An Anthropological Inquiry (New York: Free Press, 1991) p.191.

15. Hannan and Breen, Schooling and Sex Roles, p.12.

16. Shaffer, Development Psychology, p.519.

17. Schlegel and Barry, Adolescence, p.183.

18. Shaffer, Developmental Psychology, p.521.

19. Hannan and Breen, Schooling and Sex Roles, p.12.

20. Shaffer, Developmental Psychology p.549.

21. Patrick Clancy, Who Goes To College? A National Survey of Participation in Higher Education (Dublin: Higher Education Authority, 1988) p.73.

22. Ibid., p.14.

23. Ibid., p.73.

24. Kathleen Lynch "The Ethos of Girl's Schools: An Analysis of Differences Between Male and Female Schools" in The Irish Journal of Sociology Vol.10. (Social Studies, 1989) p.11.

25. Ibid., p.12.

26. Ibid., p.13.

27. Idem., The Hidden Curriculum (Falmer Press, 1989).

28. Lynch "Ethos of Girls Schools" p.27.

29. Hannan and Breen, Schooling and Sex Roles p.18.

30. Ibid., p.321.

31. John Pratt in Girls Friendly Schooling eds. Judith Whyte et al p.34.

32. Ibid., p.23.

33. Katherine Clarricoates in Sexism in Secondary Curriculum ed. Janie Whyld p.52.

34. Hannan and Breen, Schooling and Sex Roles, p.5.

35. Jennifer Hatton "Art" in Sexism in Secondary Curriculum ed. Janie Whyld, p.228.

36. Hannan and Breen, Schooling and Sex Roles, p.100.

37. Ibid., p.101.

38. Elliot W. Eisner Educating Artistic Vision (New York: MacMillan, 1972).

39. Ibid., p.146.

40. Ibid., p.147.

41. Ibid., p.148.

42. Ibid., p.149.

43. Ibid.

44. Ibid., p.150.

45. Jennifer Hatton in Sexism in Secondary Curriculum ed. Janie Whyld, p.228.

46. Ibid.

47. Kathleen Lynch in Irish Journal of Sociology, p.28.

48. Jennifer Hatton, in Sexism in Secondary Curriculum, p.229.

49. Schlegel and Barry, Adolescence, p.197.

CHAPTER 2

GENDER DIFFERENCES AND

ART EDUCATION

Accounting For Sex Differentiated Attitudes Towards Art

In chapter 1, the sex differentiated attitudes of boys and girls were discussed in relation to their subject preferences, and the results of Eisner's Art Attitude Inventories. It was concluded that girls had in general a more positive attitude towards art and that they performed better in art examinations. Possible reasons for this were briefly proposed. I wish to explore these reasons more fully in this chapter, examining the extent to which pupils' attitudes towards art are influenced by those of their parents, teachers, schools and peers.

I have previously noted the importance of the role played by these agents in the socialisation of the child and the sex-typing process. Both parents and teachers respectively were rated highest among significant others in influencing subject choice. Janie Whyld states that 'by far the most powerful source of traditional expectation will be parents and teachers'. (1) Literature supports the fact that parents influence their children's educational performance and that student's attitudes are linked with their parent's

conception of the educational goals of the school. In many cases parents seem to view those goals as a means to earning a living. Eisner points out that the two are not necessarily synonymous (2), he states 'parents tend to view the schools and their programs as agents contributing to their children's social and economic mobility' (3) and that the schools in turn 'are social institutions, and as social institutions, they tend to reflect the values of those who support them' (4) i.e. the parents. How then does this effect parents' perceptions of art in the school? Eisner believes parents emphasise the 'vocational and social uses of schooling' and that subjects such as art, which they believe do to 'contribute directly to the attainment of such goals should not be highly valued' (5). Eisner, in an American based study of both parental and teacher attitudes, found that art and music came consistently low in their level of importance within the school context. There was a

> recognition on the part of both parents and teachers that the arts contribute to good living, enjoyment, and personal satisfaction, yet both groups still believe that in school more attention should be devoted to the "bread and butter" subjects than to others. (6)

Thus art is rarely a compulsory subject and is often timetabled against other 'more academic' subjects and often, as Jennifer Halton points out, pupils must choose between art and other subjects in the craft faculty: woodwork, metal-work, technical drawing and home economics.

Moreover in schools

> Students are often advised not to take art courses because of the fear that the more capable students will not be able to get into college unless their program is filled with the usual academic subjects. The fact that colleges do accept credits taken in high school in art is either not known or ignored. (7)

Pupils in turn learn to read this 'value code'. They see how art is valued within the school by the amount of time allocated to it and even by the way in which teachers speak of it. Research has shown that many pupils have built up a gender-typed image of art as a female subject. We are told 'pupils have quite complex ideas about the nature of various subjects, the skills they require and the attitudes they engender'. (8) We have seen how teachers provide role models for children. It has even been found that the sex of the teacher can influence the pupil's image and perception of the subject. When Janie Whyld was conducting her research studies in Britain in the early 1980s, she found that in areas such as physics, male teachers outnumbered female ones by four to one and this bias towards men was true to a lesser degree in maths, geography, history and art. Here we see that although many art teachers are men, art is still seen as more of a 'girls' subject. Whyld points out that this is also true for english. She believes that the men who teach it may be regarded as cissy, particularly by working class boys, since more importance is attached to the physical aspects of gender in working class culture. (9) Consequently Whyld believes that the gender-

appropriateness of subjects is determined by the relevance they are believed to have to the kind of work that is performed by men and women.

The influence of the peer group cannot be denied. This becomes particularly strong in adolescence. Lowenfeld and Brittain believe that 'the crowd is still important especially as a reinforcement of one's own feelings', (10) and Whyld states that 'one of the most potent factors determining the image of subjects in one pupils mind is how many other pupils take them'. (11) We have observed how boys tend to choose a subject which they think will secure them a job or an apprenticeship. Hatton attributes this to the fact that 'boys see no alternative to full-time employment' but that girls on the other hand

> tend to view the prospect of employment with a 'stop-gap' mentality, a way of passing the time between school and babies, and choose subjects which they enjoy rather than those which they think will be useful in the job market. (12)

Teachers and careers staff must work hard to dispell these misconceptions. There are many forms of employment related to art and Hatton states that 'art teachers would be well advised to keep such careers information available in the artroom' (13). Girls need to be reminded that in today's economic situation, many will spend at least 20 to 30 years in paid employment. There is another reason for the currently held attitudes towards art. Eisner, like Hatton, also believes that the conception of art as

'an outlet for the release of affect' and the 'mere expression of emotion' has played a large role in determining the attitudes of parents, teachers and students towards the subject. He reiterates Dewey's belief, arguing that artistic action is a form of intelligence, a valid mode of human thought and indeed a 'complex, cognitive-perceptual activity':

> the problem of selecting qualities and organising them so that they function expressively through a medium is a consequence of intelligent decision making.... This tendency to separate art from intellect and thought from feeling has been a source of difficulty for the field of art education. (14)

Parents, teachers and students must be made aware of the vast contribution art can make to the cognitive and emotional growth of both boys and girls. As Lowenfeld and Brittain state

> Art experiences aid the development of emotional growth. Within our society, all too often children's emotions and feelings are squelched. This is particularly true of boys, who at an early age are told not to be sissies. (15)

In this section it can be concluded that pupil's attitudes are strongly linked to those of their parents, teachers and peers, and that it is vital to make the value of art known to all. It can also be concluded that these attitudes are often determined by stereotypes related to the gender appropriateness of the subject. It is this notion of 'masculinity' and 'femininity' within art that I wish to examine next.

Stereotypes in Art: Notions of Masculinity And Femininity

A curious dichotomy exists within societys' perceptions of art. On the one hand, within the school context art, is considered to be mainly a female subject with more girls taking the subject and often performing better than boys in art examinations. On the other hand, art is often considered to be a 'man's career' with, we are told, few girls succeeding 'as artists, designers or even teachers'. This was especially true in the past. Hatton states

> It would seem that as long as art is considered a pastime it is taken by girls in large numbers, but beyond the confines of the school situation art takes on a very different function and becomes a valid means of communication from which women are excluded (16).

Hatton attributes this to the 'lack of access to training and secondly prejudice'. In their essay 'Critical stereotypes: the essential feminine or how essential is femininity', Rozsika Parker and Griselda Pollock (17) have argued that women have consistently created art but their work has come to be identified with domestic craft and as a result they have become marginalised and trivialized by art historians, even up to the point of total dismissal and exclusion by twentieth century writers. Due to lack of access to art academies, restrictions on freedom to travel, lack of access to study in fields of mathematics, science and anatomy, women 'until the late 19th century were constrained to practice exclusively in the genres of portraiture and still-life, genres considered within the academic cannon of art, less

significant' (18). Because for their identification with such genres and subject matter, stereotypes and assumptions arose which attributed a certain notion of femininity common to all women artists - 'the construction and constant reiteration of a fixed categorisation - a 'stereotype''. (19) Even in the twentieth century where the number of women artists has enormously increased, this stereotype has persisted and serves to 'separate women's art from Art 'male''. The notion of men being 'busy with serious works of the imagination on a grand scale' while women are 'occupied in minor personal pastimes,' (20) is still not uncommon. This stereotype exists not only in reference to the content of women's art, but also to the form it takes - its 'feminine and decorative qualities', its 'subtle use of colour' and 'musical arrangement' of elements. These descriptions are often used to hint at the supposed less serious nature of women's art, thus implying it's inferiority to men's. The result of this has been noted by Hatton

> In an effort to be taken seriously as artists, many women have deliberately avoided the 'feminine' - the pastel tints, the delicate line etc. In other words, they have fallen into the trap of accepting the male standard and attempted to make their work masculine' (21).

Parker and Pollack unlike many feminists do not discount the possibility of distinctive features resulting from the gender of the artist. However, they argue strongly against the assumption that women have 'natural predispositions for feminine subjects'. They recognise, as does Hatton, that

social, economic, and ideological, not biological factors account for women's choice of art forms,

> any argument that proposes 'art has no sex' ignores the difference of men's and women's experience of the social structures of class and sexual divisions within our society and its historically varied effects on the art men and women produce (22).

What is the significance of this in an educational context? Hatton tells us that

> school-age girls are usually unaware of the workings of the art establishment and of women's place in society generally, they make no attempt at this 'double think' and the difference between boy's and girl's work right through the secondary school is observable, whether or not we as teachers choose to admit it. (23)

But why is this so and, to what extent do sex differences effect boy's and girl's actual ability in art and their visual aesthetic preferences?

Sex Differences in Art Ability

So far it has been established that girls have a more favourable attitude towards art, more girls take the subject and often more successfully than boys. Eisner's Attitude Inventory tests have shown a marked difference between boys' and girls' attitudes towards art and the reasons for this have been discussed. Eisner also devised a series of Art Information tests, in which he found that girls performed better, receiving consistently higher

scores than boys (24), Interestingly, he doubts that these differences result from differences in the average aesthetic intelligence of boys and girls. Eisner, along with Barnes and Lewis (25), conducted research studies into the drawings of both boys and girls and found 'the average performance was at about the same level during the elementary school years' (26). They did find a difference between the subject matters that boys and girls draw but 'their ability to deal with those subject matters are comparable (27)'. Thus systematic studies of the drawing character of children's art have yielded 'no findings that indicate significant sex differences in skill' (28). This refers to the productive realm i.e. the making of art. Listed below are four general factors that appear related to the production of visual art forms, these are

1. Skill in the management of materials.
2. Skill in perceiving qualitative relationships among those forms produced in the work itself, among forms seen in the environment, and among forms seen as mental images.
3. Skills in inventing forms that satisfy the producer within the limits of the material with which he is working.
4. Skill in creating spatial order, aesthetic order, and expressive power (29).

Sex Differences in Spatial Ability

It is particularly interesting to note point 4 above. Here we encounter another paradox. In discussing general sex differences in ability (see Chapter 1), visual-spatial intelligence was listed as being a sex differentiated area of ability, with boys performing better in visual-spatial tasks. Hannan and Breen noted this as being 'one of the most consistent and strongly differentiating aptitudes between the sexes (30). However, if this is so, why has it not emerged as a sex differentiated aspect of artistic intelligence?

Spatial intelligence plays a large role in overall art ability. Howard Gardner has studied this particular form of intelligence in some detail and has observed 'the centrality of spatial thinking in the visual arts is self evident' (31). Spatial intelligence is related to the ability to think visually. It has emerged as a combination of abilities including acute visual perception. We can define spatial intelligence as

1. The capacity to perceive the visual world accurately.
2. The capacity to transform and modify one's own initial perceptions.
3. The capacity to recreate aspects of one's visual experience (32).

Jean Piaget saw spatial intelligence as part of the general development of the logical and cognitive growth of the individual. This ability comes to fruition during adolescence. He states

> It is only during the formal operational era at the time of adolescence, can the youth deal with the idea of abstract spaces or with formal rules governing space (33)

Gardner tells us that Piaget introduced a distinction between

> 'figurative' knowledge in which an individual retains the configuration of an object (as in a mental image) and 'operative' knowledge, where the emphasis falls upon transforming the configuration (as in the manipulation of such an image) (34).

Gardner in his book has concluded that spatial intelligence is largely environmentally defined i.e. influenced by social, environmental factors. He conducted much research into cultural differences in spatial intelligence and found in a study of Eskimos, that equally high spatial abilities existed between males and females. This was also in evidence in other cultures.

> This finding demonstrates that the sex differences in spatial abilities reported regularly in our Western culture can be overcome in certain environments (or conversely, that the biases in our own environments are producing apparent spatial deficits in females) (35).

This it seems is in contradiction with Western society based findings on sex differentials favouring boys in terms of spatial /visual intelligence. Yet it is also in accordance with Eisner who, as we have seen, found no significant sex difference in the skills of 'creating spatial order' or in the skill of 'perceiving qualitative relationships among those forms produced in the

world itself' or 'among forms seen as mental images'. In congruence with Gardner's view which emphasises the role of the environment, other research shows that 'fear for success' can often affect girls functioning in areas which are not considered by society to be appropriate for females i.e. not congruent with their social roles. Horner (36) argues that for many females, attainment in mathematics for example 'produced anxiety which in turn was likely to have an adverse affect on their performance'. We may conclude that this 'fear of success' could not occur when girls study art, as it is generally felt to be a female subject. Thus girls are less inhibited by environmental factors than in other areas and therefore perform as well as or better than boys. Conversely, the opposite may be true for boys who due to less favourable acceptance of their studying art, do not perform as well as girls, in an area where due to their spatial abilities they should excel.

Sex Differences in Artistic Development

The most consistent sex-difference noted in the productive realm has been in the content or subject matter of men and women's art. The reason for this difference can be attributed to different environmental influences and experiences. It is often the result of stereotyped beliefs about men's' and women's' roles in society. It is apparent not only in the artwork of adults and adolescent pupils, but can be traced even in the work of young children. In this section I wish to outline the artistic development of children according to the stages of development as established by Lowenfeld and Brittain (37).

I will note any sex differentials that might occur. Eisner, Gardner, Lowenfeld and Brittain, all agree that children draw what is most important to them. The themes they choose convey their inner feelings and reflect their efforts to understand the world - 'the drawing provides an excellent record of the things that are of importance to the child during the drawing process' (38). As the sex-typing process continues with the socialisation of the child, the content of their artwork becomes more stereotypical. Indeed as the child passes through the various stages of artistic development, this sex difference emerges with increased force. Various studies have been conducted which support the impact of the environment upon artistic learning.

During the earliest or 'Scribbling Stage' of artistic development, very little difference is discernible in children's artwork. Eisner states

> Children living in different cultures create visual forms having remarkable degrees of similarity, especially at the pre-school level..... this similarity decreases as children get older (39).

Eisner believes that their artwork is so similar at this age because the environment has had so little opportunity to affect them. Empirical research conducted into the artwork of children between the ages of four and seven i.e. the 'Preschematic Stage' of artistic development, noted that even at this early stage differences between boy's and girl's creative use of symbols was apparent. Gardner states 'certain differences appeared to correlate with the

child's gender' (40). He found

> the predictable difference in subject matter preferences could be discerned (dolls versus trucks), but exceptions to this trend were sufficiently apparent to undermine the claims of "inborn" preferences for certain subject matters (41).

Gardner also found differences in the form of the artwork of girls and boys. He describes one boy's (Max) drawings as 'rich in detail and remarkable for their dynamism, they were highly active featuring a clash of forms in a dramatic and dense array'. Max's drawings were concerned with 'how to render figures, buildings and action, flying figures and boats on water'. In contrast to this the girl (Molly) 'realised in quite a different way the potentials of the various media at her disposal' (42). Her drawings were bold 'large scale outlines' which 'make for much simpler quieter drawings'. Moreover Gardner states 'her dramatic play drew its images from children's literature and personal recollection rather than from television'. She was more concerned with rabbits, witches and gypsies. Gardner finds a 'significant difference in the way Max and Molly picture the world and links this to the practices of their culture' (43).

Gardner also discusses the drawings of his own children, made during the Schematic Stage - age between 6 and 9 years. He remembers his own sons' preoccupation with issues of action, power and violence' and of his fascination with superheroes e.g. Batman and characters from Star Wars.

FIGURE 2.0

Drawing by a Boy during the Schematic Stage.

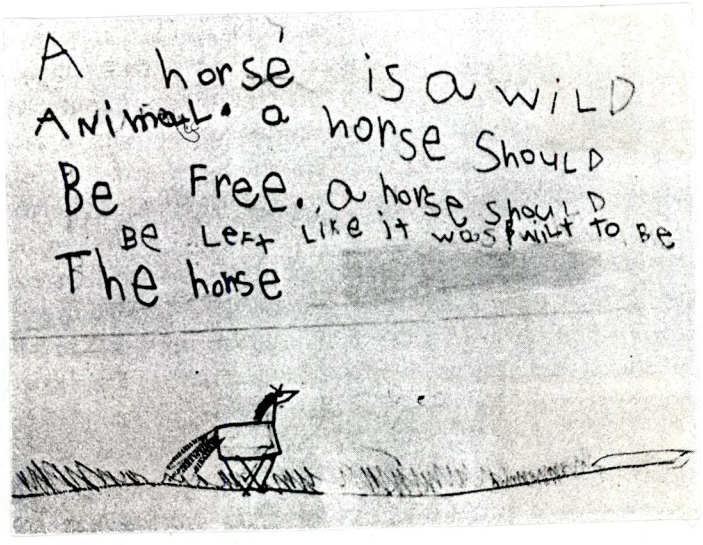
Source: Howard Gardner, Art Mind Brain Cognitive Approach to Creativity. New York: Basic Books, 1982 p. 130

In contrast to this he talks of his young daughter's preoccupation with that 'which is common among many young girls. She became completely devoted to the world of horses'. Her vision was practically the opposite in tone to his sons',

> a quiet pastoral life where one could love horses, a desire for a setting devoid of loud and harsh activity, a time for contemplation and the exercise of deep feelings of love and tender care (44).

FIGURE 2.1

Drawing by a Girl during the Schematic Stage.



Source: Gardner, Art Mind Brain p.135

Gardner presents us with two stereotypical visions of the world as evident in children's artwork. Both children seem to use art as an expressive outlet but for very different emotions, 'love and tender care' as contrasted with 'action, power and violence'. The symbols both employ reflect their different views of the world.

During the Dawning Realism Stage 9 -12 years, children are growing in their awareness of self and the environment. Both boys and girls continue to

develop interests in 'individualistic' subject matter. Lowenfeld and Brittain note that, as in earlier years

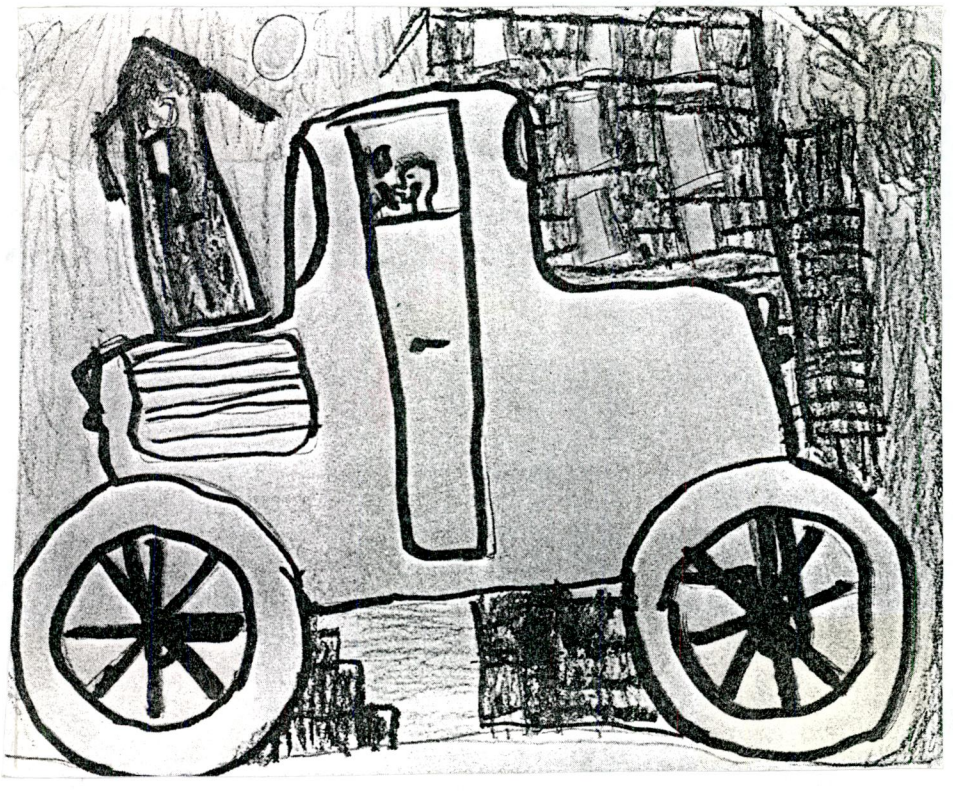
> girls of this age often focus a great deal of interest upon drawing horses..... children will project their own feelings into the animal form. For some the horse becomes a symbol of running, dashing freedom that is part of the joy of growing up. (45)

In contrast

> Boys identify more with cars and it is not unusual for boys with questionable mathematical ability to be able to spout statistics about the horse power and displacement of the latest engine design. Sometimes it even seems as if the boy becomes the car making shifting noises as he draws, just as a girl can seem to be the horse. (46).

FIGURE 2.2

Drawing by a Boy during the Dawning Realism Stage



Source: V. Lowenfeld and W. L. Brittain: Creative and Mental Growth New York: Collier, Mac Millan 1986 p. 316

Lowenfeld and Brittain believe that these stereotypes can change with changes in society. They state

> If boys are not pushed into a male stereotype, it may be that more of them will develop an interest in flowers and conversely, that girls may become more interested in the mechanical aspects of their environment (47)

But for present they acknowledge that sex differences do exist in drawings. Majewski. (1978) found that

> while girls did not draw more delicately than boys, they did draw more scenes of the environment, more smiling people but fewer sports pictures. Freeman (1979) found that in non-western cultures the interests of boys and girls, as seen in their drawings were not the same as in Western societies. (48)

Interestingly, a study carried out by Brown in 1979, revealed that when asked to draw a person, the majority of boys drew only males, with the exception of a few five year old boys. Girls drew only females until nine years of age, when 28 percent of them began drawing males (49). In figure 2.3 below we can see how a 'ten year old girl's drawing of herself displays the traditionally assumed feminine interests in hair style, pattern in clothing and flowers' (50).

FIGURE 2.3

Drawing by a Girl during the Dawning Realism Stage.

Source: Lowenfeld and Brittain Creative and Mental Growth. p. 333

Thus we can see that throughout these stages stereotypes within society are reflected in the drawings of the children.

The Pseudo-Naturalistic Stage: 12-14 years, is a time of rapid and profound change with the onset of adolescence. Role models become important, and

young adolescents show a great need to be liked by their peers and to have the respect and attention of adults. During this stage 'the pressure to conform to adult or group standards may stifle the creative urge'. (51) The sharp divide between what boys and girls choose to draw is as much in evidence as before,

> Girls discover that the mass media think they should be pretty and alluring, boy's voices begin to change and most of them try to become very masculine, they are exposed to a diverse range of models to emulate (52)

Coinciding with their physical development which occurs earlier than in boys, girls usually show a greater interest in drawing the human figure. In figure 2.4 below we can see how a 'drawing by a young adolescent' girl 'becomes a social commentary on the junior high school population, reflecting her emotions and impressions about her peers' (53)

FIGURE 2.4

Drawing by a Girl during the Pseudo Naturalistic Stage.

Source: Lowenfeld and Brittain: Creative and Mental Growth p.409

Boys during this stage often find particular enjoyment in cartooning. In these satirical drawings the adolescent may criticise his immediate society. In figure 2.5 a fourteen year old boy's cartoon pokes fun at a friend.

FIGURE 2.5

Drawing by a Boy during the Pseudo-Naturalistic Stage.

Source: Lowenfeld and Brittain: Creative and Mental Growth p. 413

Lowenfeld and Brittain observe that

> the dainty drawing of a popular celebrity, that is perfected by a timid girl is just as valid a means of expression as the elaborately decorated motor bike is for a boy (54)

This stage and the Adolescent Stage of 14-17 years, is a vital time when the art teacher must seek to foster creative growth in the student. Lowenfeld and Brittain themselves state that 'children who constantly depend upon stereotypes are unable to express their true feelings (55). Jennifer Hatton lists the various sex differences which are observable in the artwork of the adolescent.

> 'Most' girls are neater than most boys; 'most' girls will choose organic rather than mechanical subject matter; 'most' girls use colours which are more subtle than the primaries. (56)

Hatton also believes

> that left to themselves girls tend to avoid subjects needing even the smallest amount of technical knowledge, such as perspective or lettering. Boys on the other hand would miss out on, for example, figure and plant studies. (57)

Conclusion

In this chapter I have examined the influences of parents, teachers, and peers on pupils' attitudes towards art. I have looked at the various stereotypes of masculinity and femininity which exist within art, briefly considering the role of women as artists. I stressed the impact of the environment in a discussion on sex differences in artistic ability paying particular attention to differences in skill and in spatial intelligence.

Finally I have traced the existence of sex, differences in the content of children's artwork throughout their artistic development. In the following chapters I will try to evaluate to what extent the observations made here are true of my own teaching experiences. I will emphasise the role of the art teacher in counteracting limiting stereotypes and I will recommend various non-sexist approaches to art teaching.

FOOTNOTES ~ CHAPTER 2

1. Whyld, Sexism In The Secondary Curriculum p.67.
2. Eisner, Educating Artistic Vision p.17
3. Ibid
4. Ibid., p.21
5. Ibid.
6. Ibid., p.20
7. Victor Lowenfeld and W. Lambert Brittain, Creative and Mental Growth. (New York: Collier, Mac Millan, 1986) p.435.
8. Whyld, Sexism In The Secondary Curriculum p.65
9. Ibid., p.437
10. Ibid., p.68
11. Ibid., p.66
12. Hatton, in Sexism In The Secondary Curriculum ed. Janie Whyld p.230.
13. Ibid.
14. Eisner, Educating Artistic Vision p.115.
15. Lowenfeld and Brittain, Creative and Mental Growth p.326.
16. Hatton, in Sexism In The Secondary Curriculum ed. Janie Whyld p.230.
17. Rozsika Parker and Griselda Pollock, Old Mistresses Women: Art and Ideology (London Routledge and Kegan Paul, 1981) p.48.

18. Ibid., p.35

19. Ibid., p.3

20. Ibid., p.13

21. Hatton, in Sexism In The Secondary Curriculum ed. Janie Wyhld p.232.

22. Parker and Pollock, Old Mistresses p.48.

23. Hatton, in Sexism In The Secondary Curriculum e.d Janie Whyld p.233.

24. Eisner, Educating Artistic Vision p.12.

25. Ibid., p.124.

26. Ibid.

27. Ibid.

28. Ibid.

29. Ibid., p.96.

30. Hannan and Breen, Schooling and Sex Roles p.12.

31. Howard Gardner, Frames of Mind: The Theory of Multiple Intelligences. (London: Paladin, 1985) p.196.

32. Ibid.

33. Ibid., p.179.

34. Ibid.

35. Ibid., p.202.

36. Horner in Contemporary Issues in Educational Psychology ed. H. F. Clarizo; R.C. Craig; and W.A. Mehrens. (Singapore: Mc Graw-Hill Book Co. 1987) p.52.

37. Lowenfeld and Brittain, Creative and Mental Growth p.474-479.

38. Ibid p.36.

39. Eisner, Educating Artistic Vision p p.122.

40. Gardner, Art, Mind, Brain: A Cognitive Approach To Creativity. (New York: Basic Books inc., 1982) p.118.

41. Ibid.

42. Ibid., p.122

43. Ibid., p.126

44. Ibid., p.136

45. Lowenfeld and Brittain, Creative and Mental Growth p.310

46. Ibid.

47. Ibid., p.333

48. Ibid.

49. Ibid.

50. Ibid.

51. Ibid., p.430

52. Ibid., p.429

53. Ibid., p.409

54. Ibid., p.407

55. Ibid., p.326

56. Hatton in Sexism In The Secondary Curriculum p.233.

57. Ibid.

CHAPTER 3

METHODOLOGY

Introduction to Research Project

In this chapter I will describe the procedures I employed in conducting my own research project which is based on my teaching experiences. The study is designed to establish the extent to which the findings described in chapters 1 and 2, are true of the pupils I teach. I wish to determine if there is any apparent sex differences in boys' and girls' attitudes towards art and to gain an insight into how their perception of the subject changes over time. To do this I devised a questionnaire, the details of which will be discussed more fully later on. I also wish to ascertain to what extend stereotypical preferences exist in the content and form of students' artwork, comparing their work to the findings of Lowenfeld, Brittain, and Hatton. Any particular sex differences which may be evident in the pupils ability to make art will also be noted.This will be based on my own observations of pupil's work, resulting from the schemes of work I have devised. Finally, I believe it is important to place my research study in the context of the school environment in which it was carried out.

Background Information on School

St. Andrew's College, Booterstown Avenue, Blackrock, Co. Dublin, was founded in 1894 by members of the Presbyterian community in Dublin, as a school for boys. Approximately fifteen years ago the school became co-educational, however there is still an unbalanced sex ratio in the school's pupil population, with a higher number of boys attending. There is both a junior and senior school with a total of 992 fee paying pupils, 750 of which attend the secondary school. In addition to accepting day pupils, the school holds 63 boarding places for boys. The school is described as a leading interdenominational, international school providing primary and secondary education to boys and girls from many different backgrounds and nationalities. It is situated in the southern suburbs of the city, overlooking Dublin Bay. The school's philosophy and aims are stated as follows.

> We strive to offer all our pupils a balanced, liberal and comprehensive education. We avail of the most modern educational and curriculum developments in order to prepare our boys and girls for active and fulfilling participation in the world outside. Believing in the supreme importance of the individual we work towards the full development of his or her intellect, talents and skills. (1)

Curriculum

Curriculum followed in the first three years of the Senior School is that of the Department of Education Junior Certificate. Fourth year is a transition year. In fifth and sixth year the curriculum is that of the Department of Education

Leaving Certificate. As an alternative, pupils may choose the International Bacculaureate course. Subjects taught are Art, Civics, Classical Studies, Commerce (Accounting, Business Organisation and Economics), English, French, Geography, German, History, Home Economics, Irish, Mathematics, Music, Physical Education, Religious Education, Science (Biology, Chemistry, Physics), Spanish, Computer Studies and Career Guidance.

Art

Art is not a compulsory subject in the school curriculum. It is quite popular up to Junior Certificate but relatively few pupils choose to study it at Leaving Certificate level. There are three art teachers and three art classrooms, one of which is prefabricated. In the art-room in which I am teaching, facilities include equipment suitable for most activities. Crafts include ceramics, printing, batik, etcetera. There is a well stocked classroom library, a slide projector and a kiln. The art classes are composed of mixed ability students. Class sizes are average. There are 24 first year pupils in the group I teach, 10 girls and 14 boys. The average age is 12 to 13 years. My second year group totals 23 pupils, 9 girls and 14 boys. The average age in this case is 13 to 14 years.

Details of Research Project

The Questionnaire

This consists of 21 basic questions and was drawn up to obtain first hand information from the pupils themselves. It concerns their attitudes towards art and their preferences within the subject. As an example, question 4 was asked in order to establish where pupils hold art in preference to other subjects; do girl's answers demonstrate a more favourable attitude towards art, as in concurrence with the findings of Eisner, Hannan and Breen? Question 5 is related to question 4 i.e. the pupils' likes and dislikes. Question 7 is concerned with pupils' perceptions of their own ability in art, whether they find it easy or difficult. It will be interesting to observe any differences which appear in boys' and girls' answers to this question. Questions 10 to 15 relate to the pupils' preferences for type of art activity and subject matter. Questions 16 to 19 are concerned with pupils' preferences for materials and individual elements. Question 20 was asked to see how many pupils, if any, included women artists in their answer? Question 21 is once again related to the pupils' attitudes.

This questionnaire was filled out by a total of 41 pupils, including both first and second years. Of this number, 26 were boys and 15 were girls. The higher proportion of boys attending the school must be taken into account when viewing these numbers. A similar, slightly more complex questionnaire was given out to sixth year pupils, 3 boys and 5 girls. The

results of this will not be dealt with separately, but will be discussed in relation to the first and second year questionnaire. Any changes in attitude etcetera, will be included in this discussion. A copy of both questionnaires can be found in the appendix to this chapter. (See appendix 2).

Teaching Project

In her discussion on art, Jennifer Hatton observes that

> when working from a list of themes the pupils' finished pieces can still usually be identified as 'male' or 'female' even when the themes were though to be essentially non-sexist (2).

It is this strong sex difference in the content and form of pupils' work which I wished to explore further through my own teaching. The scheme of work I drew up for my First Year pupils was a project based on puppetry. This is an area which lends itself greatly to imagination and creativity. Pupils are provided with the chance to design and create their own puppet characters. I believe the puppets, with their exaggerated forms and distinct personalities, reflect the personal concerns of the pupils who made them.

The puppets are based on a theme, which I considered to be reasonably 'neutral' or non-sexist and which was entitled 'The Rainforests'. Pupils were allowed freedom to interpret this theme as they wished. Lowenfeld and Brittain state

> Much modern society now has a heightened awareness of ecology and children need but little encouragement to develop a concern for their environment . . . . . this can awaken perceptual sensitivities (3).

In Chapter 4 I shall describe in detail the pupils' responses to this theme and the way in which boys and girls interpreted it to design their own puppet characters. The extent to which stereotypes feature in their work will also be examined.

In addition to the expressive potential of the activity, puppetry also provides pupils with a valid means of learning. It encompasses a wide range of art elements e.g. form, proportion, movement, colour and surface decoration. Both two-dimensional and three dimensional skills are needed: observational drawing; painting; modelling; manipulation of materials such as papier mâché and fabric, to name but a few. The way in which pupils approached these skills will also be discussed in chapter 4 and any sex differences will be noted.

The project devised for Second Year students was based upon lino printing. This medium also requires its own particular set of techniques and skills. In next Chapter 4 will examine individual drawings and final prints to determine differences in boys and girls use of the materials, and in their ability to design and understand the possibilities of the medium. The theme I chose

for this project was the 'Garden Shed'. The source from which the pupils drew was a large still life arrangement, containing both organic and mechanical objects. Pupils were given a choice as to where to position themselves around the still life and as to which aspects of it to draw. Any differences in boys' and girls' preferences will be looked into. This scheme of work consisted of 8 lessons, 3 were based on observational drawing, 2 entailed the designing of lino blocks, 1 dealt with tracing and transferring designs onto lino, and the remaining 2 lessons were based on cutting and printing the lino blocks in stages.

Conclusion

In this chapter I have briefly outlined the methods I used in my research project, the results of which will be described and analysed in much greater detail in chapter 4.

FOOTNOTES ~ CHAPTER 3

1. St. Andrew's College, School Prospectus p.3.

2. Hatton in Sexism in the Secondary Curriculum ed. Janie Whyld p.233.

3. Lowenfeld and Brittain Creative and Mental Growth p.310.

CHAPTER 4

RESULTS AND DISCUSSION

Questionnaire Results

In this section, pupils' responses to the questionnaire (see appendix 2) have been analysed in table form. The results of those questions which cannot be measured in tables have been briefly described.

Question 4: **List the subjects you are studying in order of preference i.e. your favourite subject first and your least favourite subject last.**

Answer: See table 10.

TABLE 10

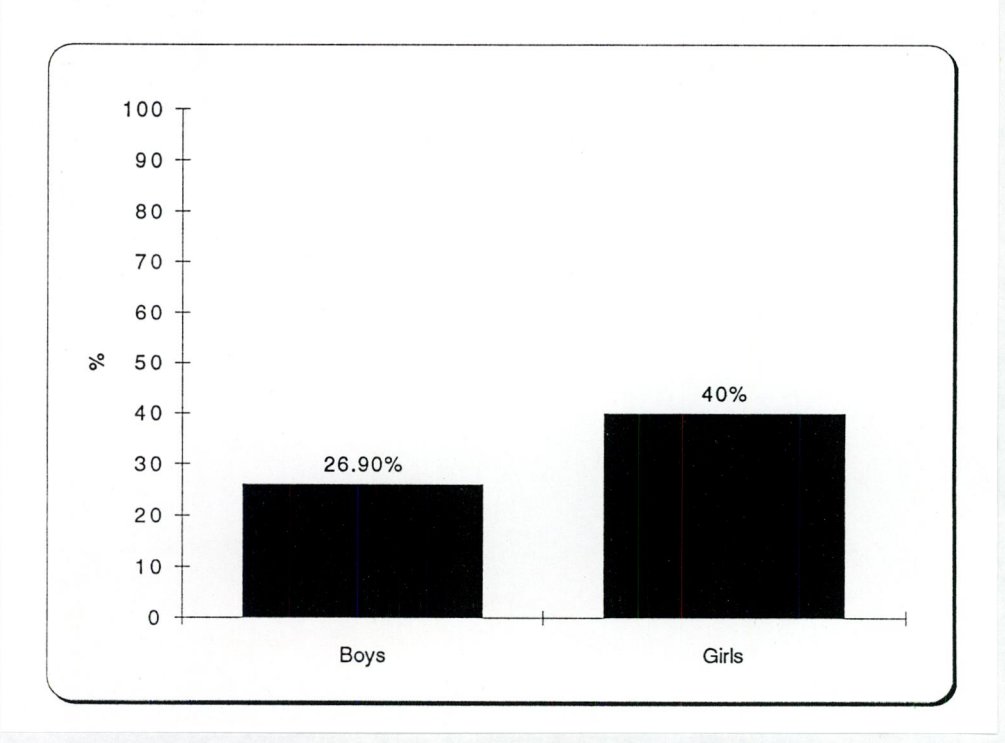
Percentage of Pupils who listed the Following Subjects as their First Preference. Overall result from 1st and 2nd years. Total number of pupils = 40.

Subject	Boys %	Girls%
Art	26.9	40
P.E.	46	26.6
History	8	6.6
Maths	3.8	-
Irish	3.8	26.6
Classical Studies	3.8	-
Science	3.8	-
Spanish	3.8	-

This question was asked in order to establish the pupils' rating of art in relation to the other subjects they are studying. In table 11 it can be seen that girls do indeed rate art higher on their list of preferences. This is in accordance with Eisner's Art Attitude Inventories (see chapter 1). This however is not apparent in sixth year, where only 1 out of 5 girls (and no boys) listed art as their first preference.

TABLE 11

Percentage of Boys and Girls who listed Art as their First Preference (out of a possible ten subjects).

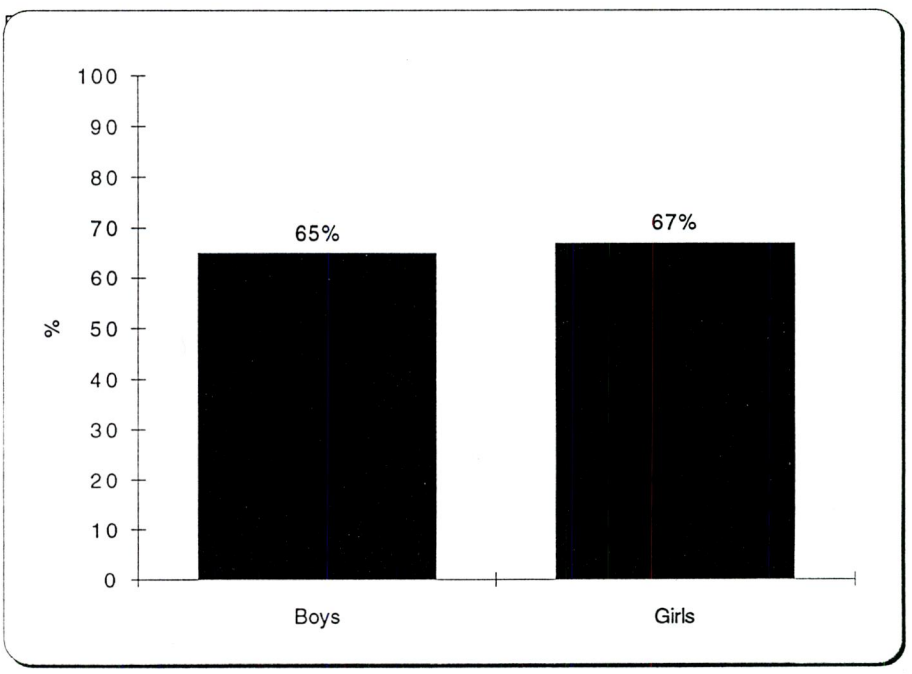


This table describes first preference only, however the discrepancy between boys' and girls' choices becomes much less evident, when looking at the figures for those who chose art as one of their first three preferences (see table 12). This indicates that boys do rate art highly among their other

subjects but, P.E. was first preference for 40% of boys, compared with the 26.9% who chose art. P.E. and Irish rated equally for girls as first preferences both attaining a high 26.6%. In contrast to this only 3.8% of boys listed Irish as their first preference.

TABLE 12

Percentage of Boys and Girls who listed Art as one their First Three Preferences (out of a possible 10 subjects).



Question 5: **Do you find art:**

A. Very Interesting?

B. Interesting?

C. Not Interesting at all?

Answer: See Table 13.

TABLE 13

Percentage of Boys and Girls who find Art:
Very Interesting; Interesting; Not Interesting At All.

	Boys %	**Girls %**
Very Interesting	20	35.7
Interesting	76	64.2
Not Interesting At All	4	-

Once again girls responded more favourably to this question, all of them expressing high levels of interest in the subject.

Question 6: **Give one reason for your answer.**

Answer: The most popular reasons given were

A. It's different to the usual subjects.

B. Because I like it and it's fun.

C. I like learning new techniques (using different materials).

Question 7: **Do you find art**

A. Very Easy?

B. Easy?

C. Difficult?

D. Very Difficult?

Answer: See Table 14.

TABLE 14

Percentage of Boys and Girls who find Art: Very Easy; Easy; Difficult; Very Difficult.

	Boys %	Girls %
Very Easy	9.5	-
Easy	47.6	58.3
Difficult	38	41.6
Very Difficult	4.8	-

It is interesting to note that none of the girls described art as being 'Very Easy', in contrast to 9.5% of boys. This could indicate that girls underestimated their ability in this area.

Question 8: **Give one reason for your answer.**

Answer: The most popular reasons for those who found art 'Easy' were:

A. Because I'm good at it and enjoy it.

B. There's not much pressure on you to do well.

C. Because I like using my imagination.

Reasons for those who found art 'Difficult' were:

A. I like art but I'm not that good at it.

B. Because you need to practice and spend a long time on one thing.

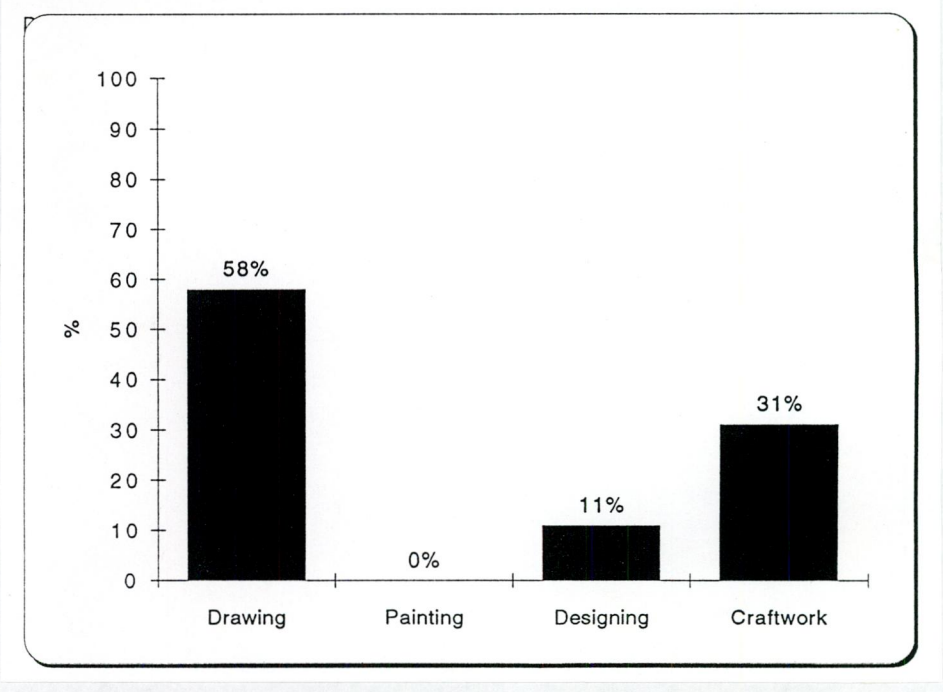
C. You have to work hard at it.

Question 10: **Which kind of art activity do you most enjoy? List in order of preference.**

Answer: See Table 15 and 16.

TABLE 15

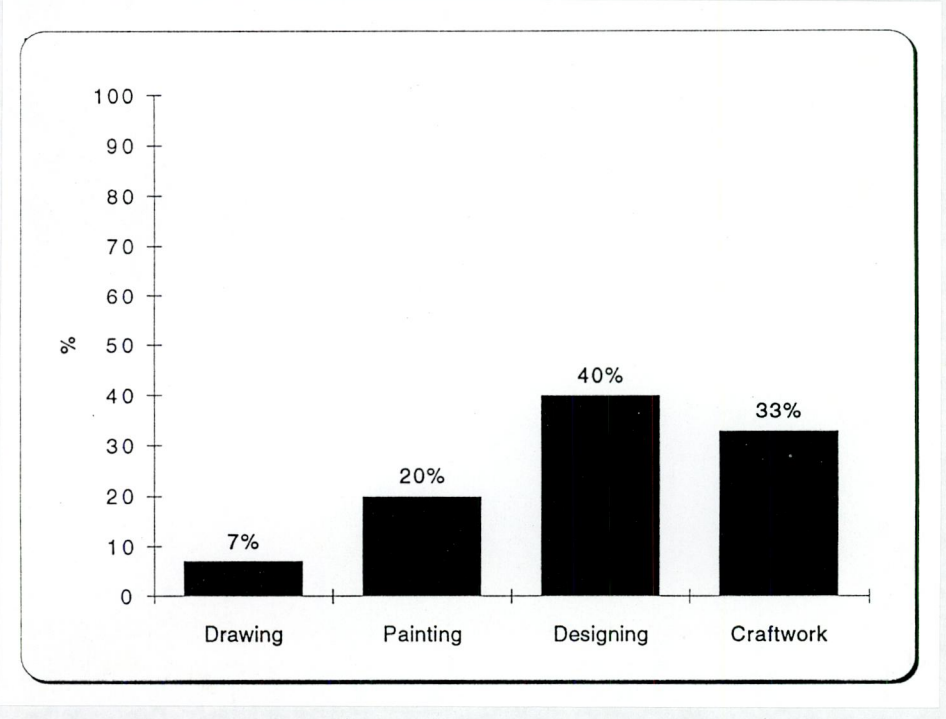
Percentage of Boys who list either Drawing; Painting; Designing; Craftwork as First Preference.



The discrepancy in preference for drawing and painting was equally in evidence in both 1st year and 2nd year boys. However the distinction was not as marked in 6th years, where only one boy out of three listed drawing as first preference.

TABLE 16

Percentage of Girls who listed either: Drawing; Painting; Designing; Craftwork, as their First Preference.



As expected the male bias towards drawing was confirmed. There is a larger percentage of girls choosing painting, as compared to no boys. The numbers choosing craftwork are almost equal but, what was not anticipated is the amount of girls choosing design. This does not fit into the usual stereotypical image of design as a male preference. There was a significant difference between the number of 1st year and 2nd year girls choosing design. A much higher number of 1st year girls listed design as their first preference.

Question 11: **Give one reason for your first choice.**

Answer: The most popular boys' answer as to why they chose drawing as their 1st preference were:

A. Because I'm good at it.

B. Because I like drawing funny and imaginary things.

C. Because I like to copy characters from comics and computer games.

It is interesting to observe that most boys who chose drawing expressed confidence in their ability in this area. Answer C above can also be related to Lowenfeld and Brittain who discussed how boys especially enjoyed cartooning during the Pseudo-Naturalistic Stage of artistic development.

The most popular girls answers as to why they chose designing as their first preference were:

A. Because I can use my imagination.

B. Because I can use lots of different colours.

C. Because I'm interested in clothes design.

Many of the 1st year girls expressed an interest in fashion design and this is obviously how they interpreted the word 'Designing'. This is quite a stereotypical preference.

Question 13: **Would you rather draw:**

A. A Building?

B. A Person?

C. An Aeroplane?

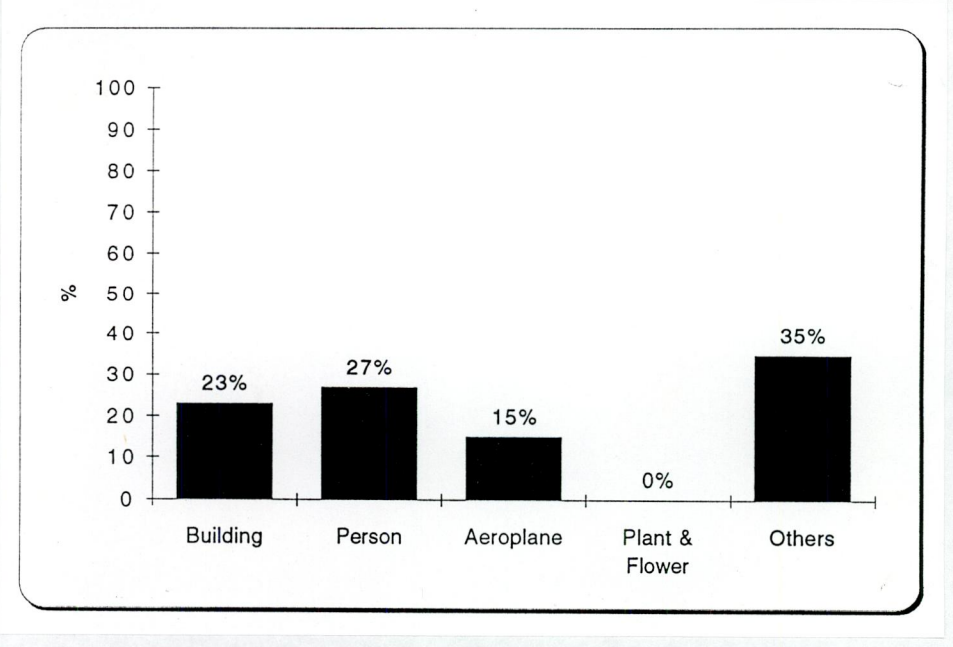
D. A Plant/Flower?

E. Other (say what)?

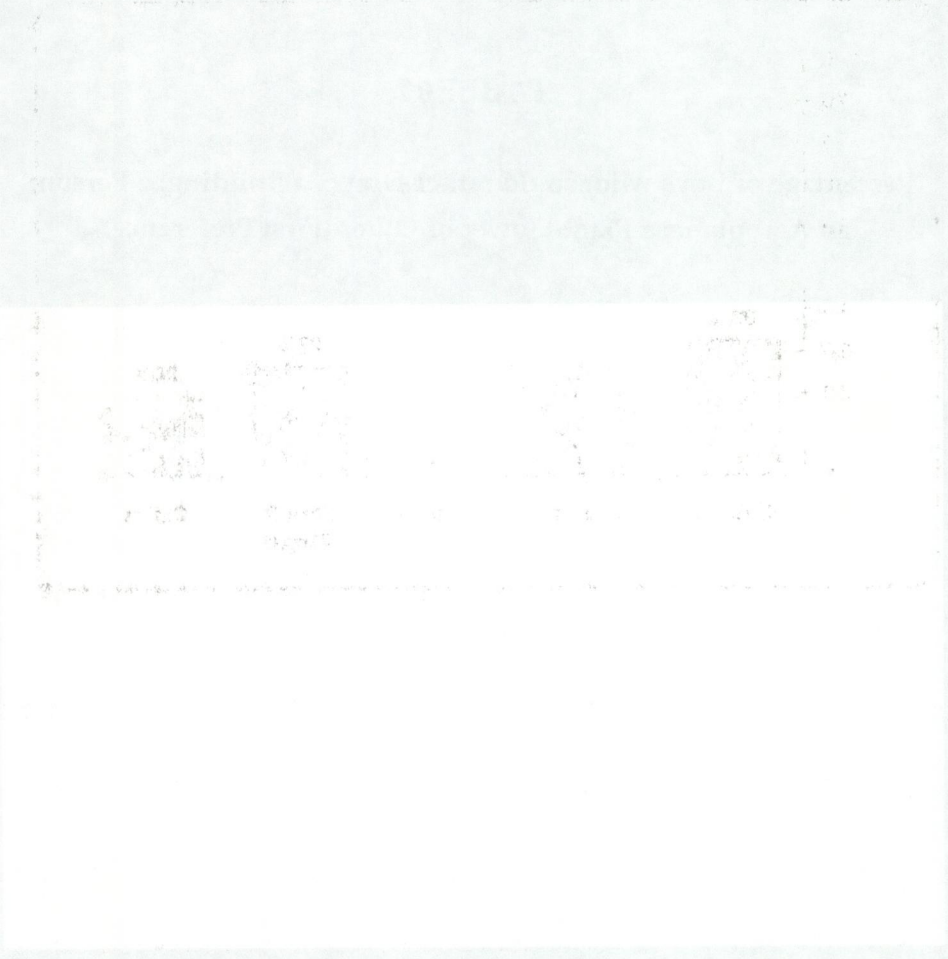
Answer: See Table 17 and 18.

TABLE 17

Percentage of Boys who would rather Draw: a Building; a Person; an Aeroplane; a Plant/Flower or Other (First Preference).



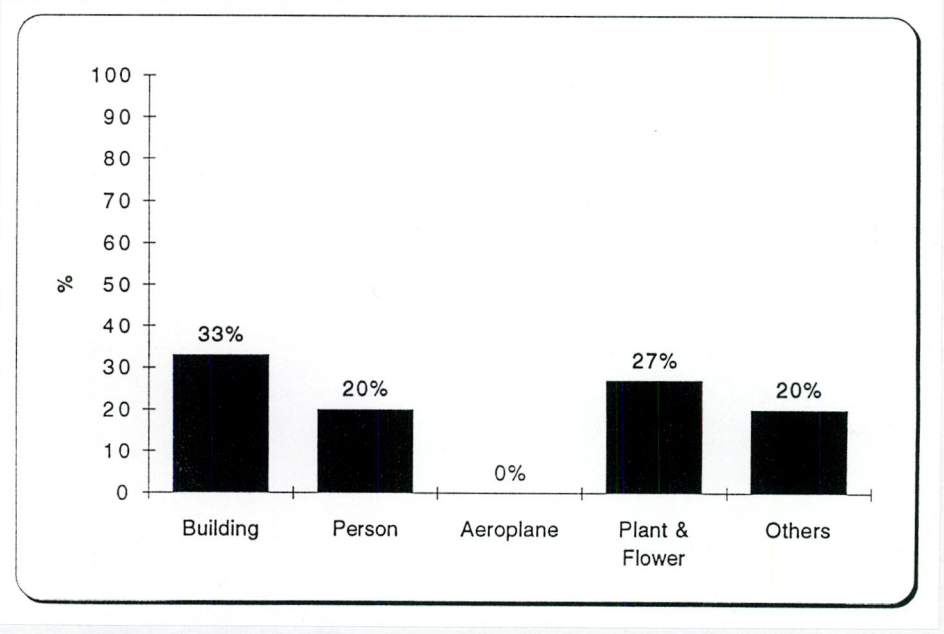
A much higher number of boys in 1st year preferred drawing a person to those in 2nd year. 'Others' were listed as : science-fiction monsters; spacecrafts; cartoons and funny characters; horror and fantasy images; some



boys even listed warships and tanks. These are extremely stereotypical preferences, but weren't true for all boys. Despite the fact that none of them chose plants/flowers, some did express an interest in drawing animals.

TABLE 18

Percentage of Girls who would rather Draw: a Building; a Person; an Aeroplane; a Plant/Flower or Other (First Preference only).



This question was asked in order to establish sex differences in subject matter preferences. This is a very unexpected result with 'a Building' receiving the highest percentage. A significantly higher number of 2nd year girls listed this as their 1st preference. It is also surprising to see that less girls (20%) would rather draw 'a Person' than boys (27%). This seems to contradict the views of Lowenfeld and Brittain who believe that more girls enjoy drawing people at this stage of their artistic development. The next three categories

exhibit traditionally stereotypical preferences, with no girls choosing 'an Aeroplane', compared to 15% of boys, and 27% of girls choosing a 'Plant or Flower', compared to no boys. Listed in the category 'Others', girls also demonstrated stereotyped preferences, among those named were animals, toyshops and sunsets.

Question 15: **Give one reason for your choice.**

Answer: Most of the boys who chose the 'Other' category expressed enjoyment in drawing 'cartoons', 'funny characters' and 'horror pictures'.

The girls who chose 'a Building' expressed enjoyment in drawing 'perspective' and 'solid shapes' and they also perceived buildings to be 'easier to draw'.

Question 16: **Name which colours you most like to use in your artwork.**

Answer: See Table 19.

TABLE 19

Percentage of Boys and Girls who Expressed a Preference for Certain Colours.

Colour	Boys %	Girls %
Red	23	17.9
Yellow	10.6	10.2
Blue	18.6	31
Green	10.6	10.2
Orange	-	5
Purple	4	7.6
Pink	-	2.5
White	6.6	10.2
Black	20	2.5
Brown	-	2.5
Grey	6.6	-

This question was asked in order to judge whether or not preferential differences existed among boys and girls for certain colours. Do boys really prefer 'strong, bright primary colours', while girls prefer more 'subdued pastel shades'? This table shows similarities between the preferences of boys and girls for certain colours: red, yellow, green and white. However, it is clear that sex differences exist among this particular groups' preferences for certain colours such as blue (favoured by girls) and black (favoured by boys). This finding seems to contradict those of Hans. J. Eysenck, (1) a psychologist who carried out research into experimental aesthetics. This relies 'extensively on the statistical analysis of preference judgements for simple (colours, colour combinations, polygons) or complex works of art'. (2) Among these studies was that of colour preferences, Eysenck states

> It is possible to argue that men and women may have different colour preferences, but data from seventeen investigations averaged by Eysenck (1941) . . . . show that 7378 men and 6247 women produce ranking of the colours in question which are almost identical. (3)

These findings can be seen here in table 20 and can be compared to my findings in table 19.

TABLE 20

Average Rankings of Colour Preferences of Men and Women.

Colour	7378 Men	6347 Women
Blue	1.45	1.68
Red	2.47	2.50
Green	2.53	2.52
Violet	4.36	4.14
Orange	4.94	5.13
Yellow	5.50	5.03

Source: Quoted from Hans J. Eysenck 'Aesthetic Preferences an Individual Differences' in Psychology and the Arts e.d. David O'Hare (Sussex : The Harvester Press, 1981) p.81.

Question 19: **Do you** **A. Keep your work tidy?**

B. Don't mind if it's messy?

C. Like to keep work tidy but make mistakes?

Answer: See Table 21.

TABLE 21

The Percentage of Boys and Girls who: Keep their Work Tidy; Don't Mind if it is Messy; Like to Keep Work Tidy but Make Mistakes.

	Boys %	Girls %
A. Like to keep work tidy.	27	33.3
B. Don't mind if its messy.	7	6.6
C. Like to keep it tidy but make mistakes.	66	60

This finding shows no great sex difference in degree of neatness or messiness in the work of boys and girls - both express an equally high desire to keep their work tidy. An equally low number of boy and girls don't mind if their work is messy. This seems to contradict Jennifer Hatton's observation that 'most girls are neater than most boys'. It is an interesting view of the pupils' own perceptions of their working methods.

Question 20: **Can you name two famous artists?**

Answer: This question was asked to determine how well informed pupils were concerning women artists.

Out of all those who answered this question including sixth years, only one woman artist (Mainie Jellet) was named, and interestingly this was by a second year boy.

Question 21: **Would you like to be an Artist/Designer when you leave school?**

Answer: Here an enormous sex difference emerged in the pupils response. 28% of boys expressed some wish of becoming an artist/designer compared to 73.3% of girls.

In related questions see (25-28), the sixth year responses showed that an equal number of boys and girls were preparing portfolios and expressed a wish to continue studying art at third level. Among the career intentions listed for those who did not wish to pursue a career in art were, for boys: architecture; gardaí; and communications and, for girls: au pairing; tourism; natural science; and computer software design.

In this section I have described and analysed the results of the questionnaire which I devised. How these results compare to my teaching project will be discussed in the next section.

Teaching Project : Results

Scheme 1 - First Years

In the first lesson of this scheme, I presented the theme i.e. 'The Rainforests' to the pupils, and encouraged them to discuss what was happening to the forests and why this was so. Gradually a story was devised on which a puppet show could be based. This was centred on the 'destruction' of the forests. The next step was to think of characters or puppets who could 'act' out this story. The pupils were enthusiastic about the theme which I left open to their own interpretation. I asked them to draw or paint their initial ideas for their puppet characters. The differences between the ideas drawn by boys and those drawn by girls were very remarkable. As the following work shows, all pupils relied very heavily on traditional stereotypes.

The boys concentrated entirely on the 'destruction' of the Rainforests - there were no exceptions. Their characters (all male) were violent and malevolent, forest cutters, characters personifying fire, even greedy businessmen and profiteers of this destruction. (Drawings all reduced from A2 size).

FIGURE 4.0

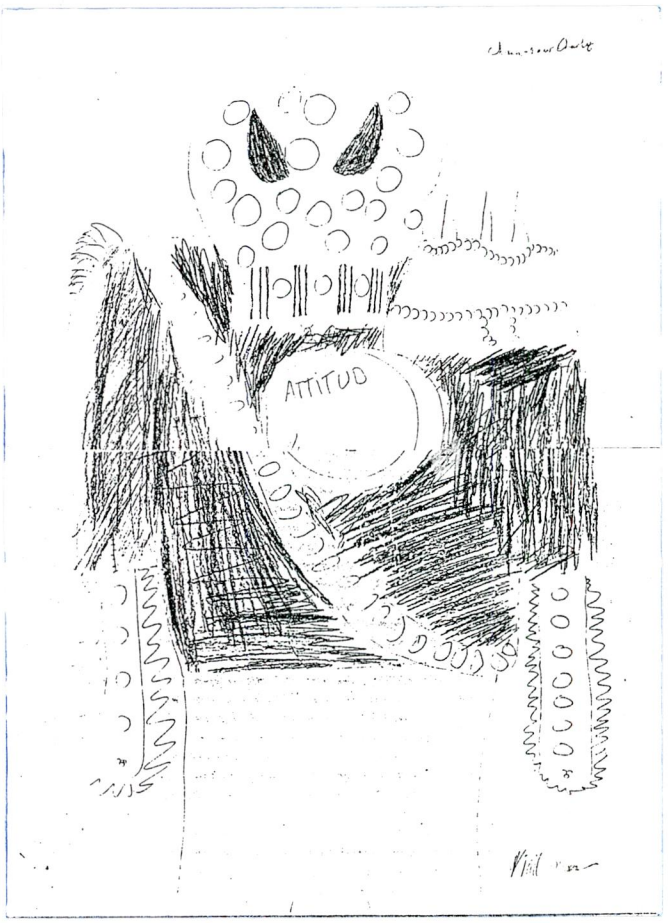
Drawing by a First Year Boy entitled 'Lumber Jack Harry'.

This drawing is very typical of a 13 year old boy and relates clearly to Lowenfeld and Brittain's Pseudo Naturalistic Stage of Artistic Development, and the characteristics attributed to it. This boy's drawing is an extreme assertion of a masculine stereotype. It is also very satirical, as evident in details such as the cigarette, the unshaven jaw, even the costume. The boys comments included in the drawing are quite humourous 'Lumber Jack Harry, Not Your Average Gardener' and 'pigs will fly and rainforests die'. Another

'forest cutter' appears in figure 4.1. This time the boy refers to imagery seen in comic books and films. Its characteristics are again typical of pre adolescent drawings. This boy has chosen to represent a robot like figure - its chainsaw arms and glaring eyes are quite menacing. Once again strong stereotypical imagery has been employed.

FIGURE 4.1

Drawing by a 1st year Boy, Entitled 'Chain-saw Charly'.



Another character of destruction can be seen in figure 4.2, this time personifying the fire which burns the trees.

FIGURE 4.2

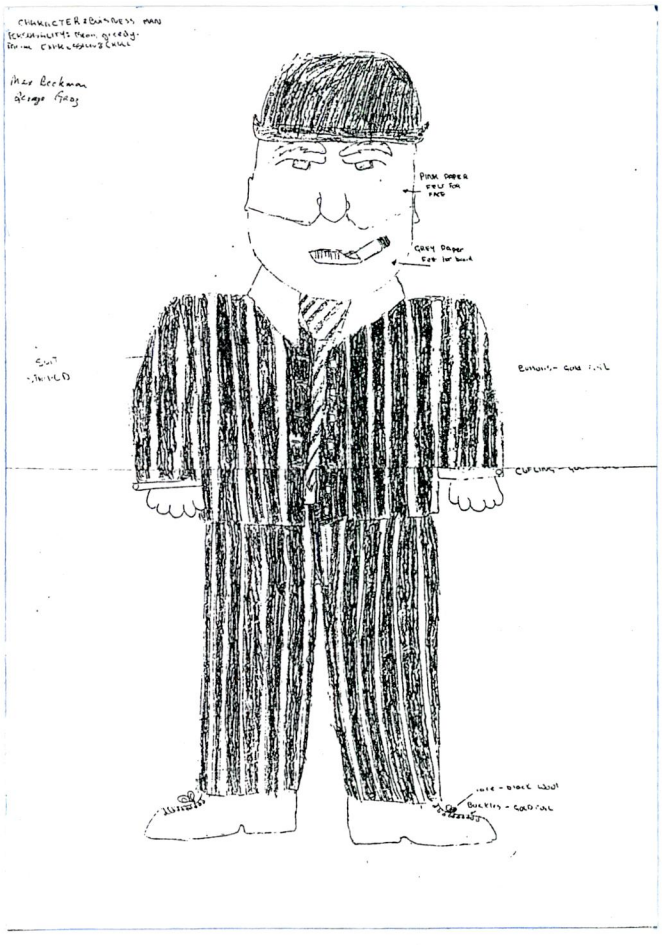
Painting by a First Year Boy, Entitled 'Mister Inferno'.

This boy has clearly enjoyed expressing the vibrant and malicious nature of the fire. He has used strong primary colours and loosely handled brushstrokes to represent the flames. This manner of execution could also be looked upon as stereotypical.

Figure 4.3 depicts a 'Businessman'. The boys comments tell us his personality is 'mean and greedy' and that his facial 'expression is cruel'.

FIGURE 4.3

Drawing by a First Year Boy, Entitled 'The Businessman'.



It is clear from these boys' drawings that they relied on well established stereotypes and this is equally in evidence in those drawings produced by the girls. While the boys tended to draw 'aggressive male characters', conversely the girls drew typically feminine and passive characters, e.g. the indians who lived in the rainforests, and personifications of the trees themselves. Figure 4.4 and 4.5 are extremely typical of girls' drawings during the pseudo-naturalistic stage. The characters are again based on film

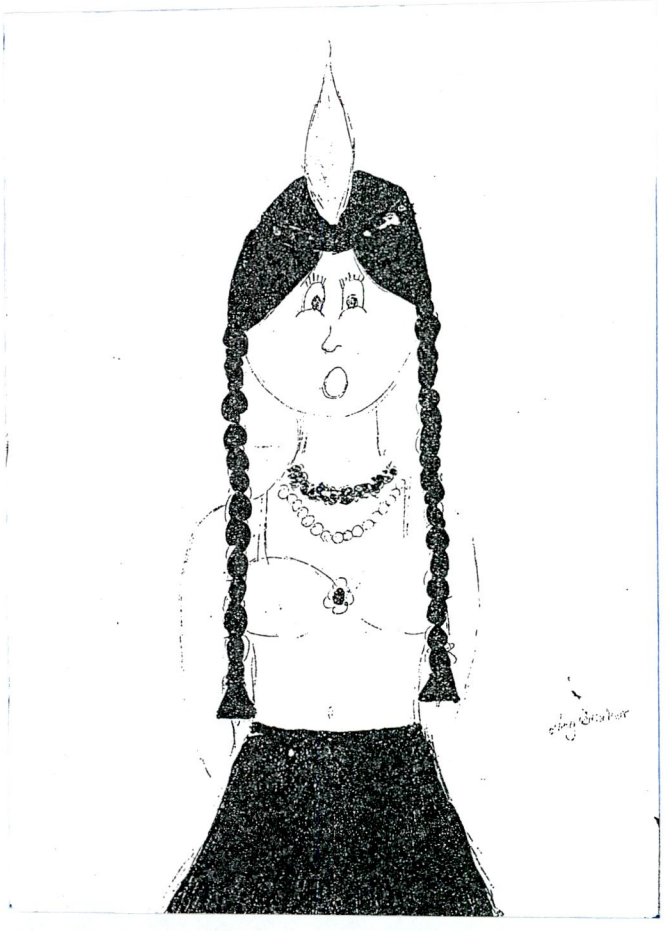
and comic books, and are not in the least true to life representations of actual Amazonian Indians. Despite my bringing into the classroom actual photographs and similar resource material on the inhabitants of the rainforests, certain stereotypical characteristics can be seen, even in the girls completed puppet characters.

FIGURE 4.4

Drawing by a First Year Girl, Entitled 'Indian Girl with a Tree'.

FIGURE 4.5

Drawn by a First Year Girl, Entitled 'Indian Girl'.

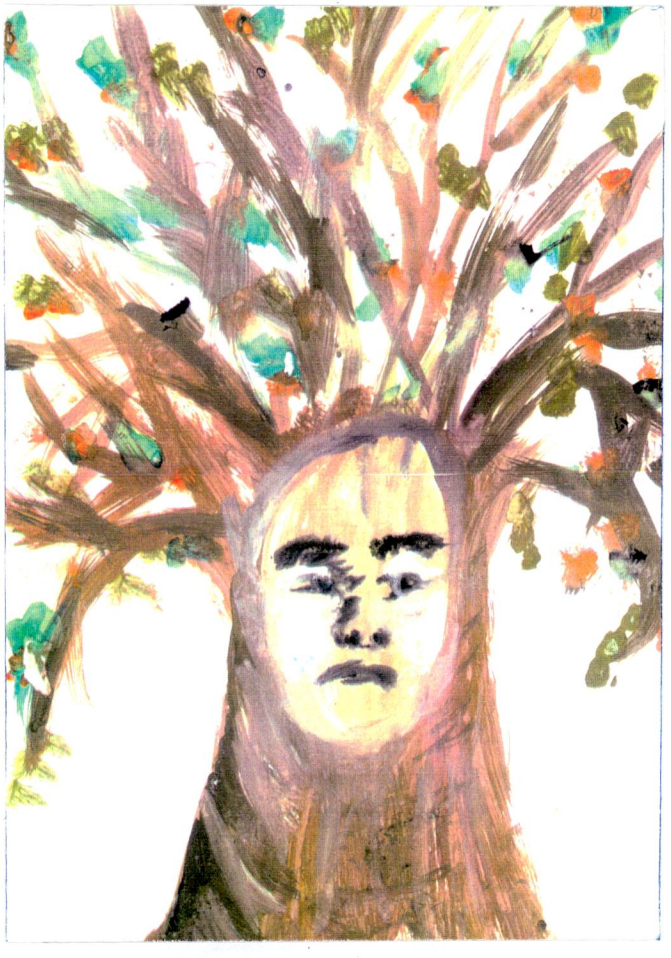


In both drawings the girls have concentrated on details of costume, jewellry and hairstyle. The characters are 'pretty and dainty' and it is clear that the girls have been influenced by the media.

Figure 4.6 depicts a tree, despite the fact that the colours are rather subdued, to suit the subject matter. Its execution is comparable to that of the boy in figure 4.2. The paint is handled in a similarly vibrant and expressive manner.

FIGURE 4.6

Painting by a First Year Girl, Entitled 'The Tree'.



The next number of lessons were based on observational drawing of the human head. The learning objective of these lessons focused on different ways of representing form on a two-dimensional surface. Then I introduced papier mâché. This began with modelling newspaper to describe the form and proportions of the head. As the lessons progressed pupils became more adept in their ability to manipulate this material. Their puppet heads became more sophisticated dealing with facial expression and colour.

FIGURE 4.7

Two First Year Girls Working with Papier Mâché.

Throughout these lessons I found no apparent sex difference in the pupils ability to manipulate materials, or in their ability to understand the concept of form. Certain pupils worked at a slower pace than others and the class reached different stages at different times, however progress rates varied equally among boys and girls.

FIGURE 4.8

1st year Boys Working on their Puppet Heads.

Similarly, no sex difference emerged in the pupils' skills, when making the costumes for the puppets. Both boys and girls participated with equal enthusiasm in such tasks as sewing costumes and fabric manipulation. It was very encouraging to see this, as I had not been sure how this aspect of puppetry would be received by the boys. They too worked equally hard on the costumes, exploring detail and surface decoration. In the illustrations below, (figures 4.9 to 4.16) the finished puppets remain sex-differentiated in that the characters they represent are drawn mainly from stereotypes. However I find no apparent differences in the way they were made, there is equal attention given to detail, and equal understanding of form - on the part of both boys and girls. The pupils created puppets, which are equally expressive, in their use of bright colours and exaggerated form.

FIGURE 4.9

First Year Boy's Puppet, Entitled 'Mr. Inferno'.

The development from this boy's initial idea (see figure 4.2) to fully completed three-dimensional puppet can be seen here. The majority of pupils carried out their first ideas, but some modified and changed their characters. Interestingly these remained within the confines of male and female stereotypes.

FIGURE 4.10

First Year Boy's Puppet, Entitled The Evil Woodcutter.

The element of humour is still apparent in many of the boys puppets as can be seen in figure 4.11.

FIGURE 4.11

First Year Boy's Puppet, Entitled 'Mr. Punk'.

FIGURE 4.12

First Year Boy's Puppet, Entitled 'Phantom of the Forest'.

FIGURE 4.13

First Year Girl's Puppet, Entitled 'The Tree'.

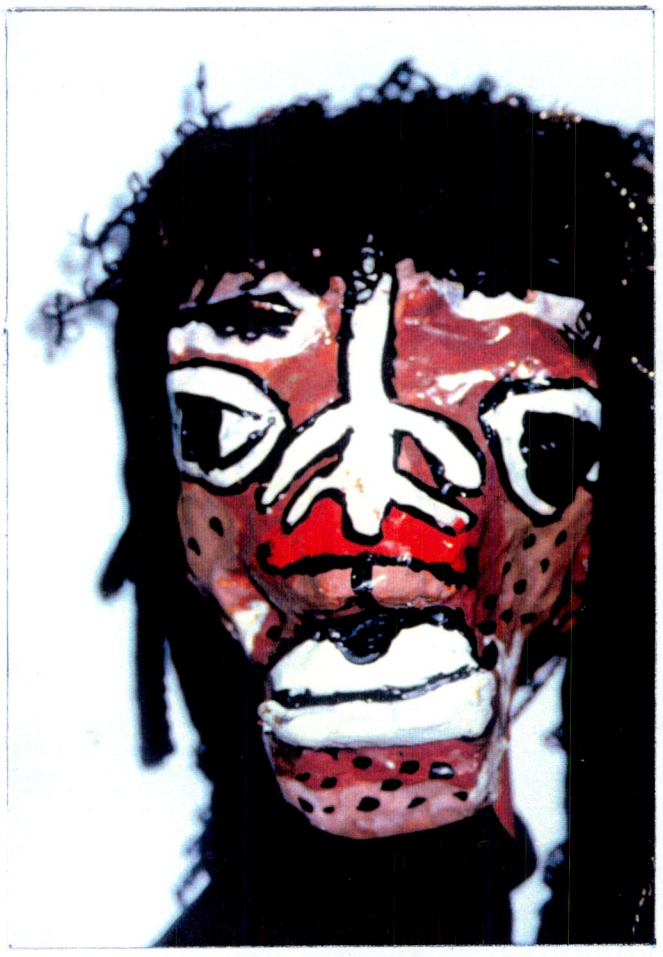
This is another puppet which relates back to this girl's initial idea (Figure 4.6) as can the puppet seen in figure 4.14.

FIGURE 4.15

First Year Girl's Puppet, Entitled 'The Old Indian Fortune-Teller'.

FIGURE 4.16

First Year Girl's Puppet, Entitled 'Indian Girl'.

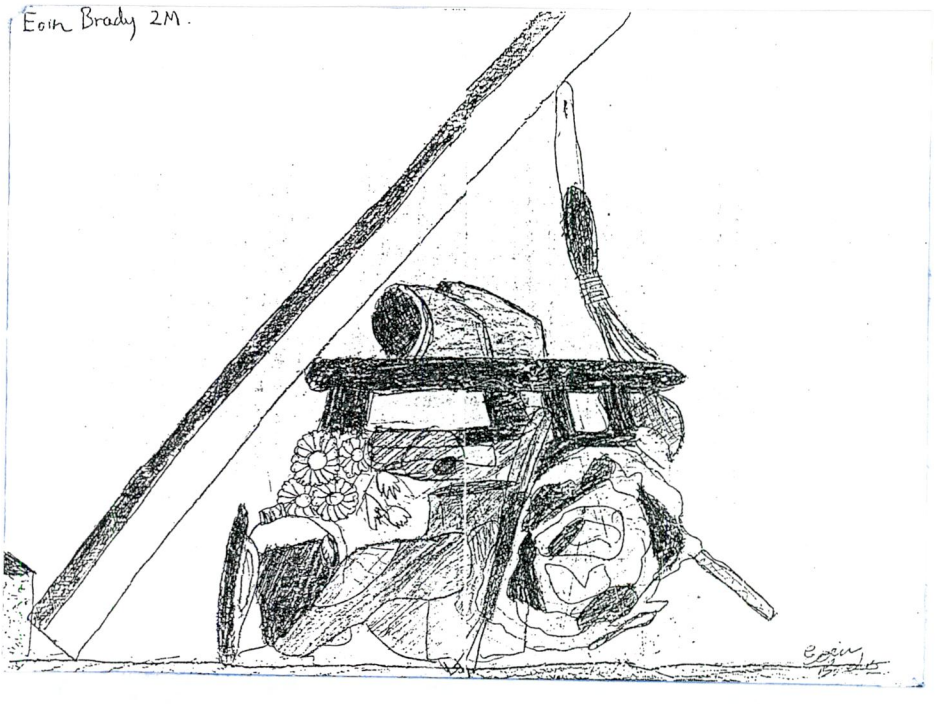


Scheme 2 - Second Years

This second year project on Lino Printing was based on the theme 'the Garden Shed'. The initial lessons in this scheme, involved observational drawing of a still life, containing both mechanical and organic objects related to the theme. The learning objective for these lessons centred on the art elements shape and line. In the first lesson pupils were required to follow the outline of the entire still life mapping in the overall shape. Then gradually concentrating on the interior shapes inside this outline, considering both positive and negative shapes. Following lessons dealt with line and expressive use of line to build up tonal and textural effects. After this the pupils, using viewfinders, focused on a certain area of the still life which would lend itself in terms of variety, contrast and balance to a design for a lino print. Examples of this can be seen in figures 4.17 to 4.21 below. All drawings have been reduced from A2 size.

FIGURE 4.17

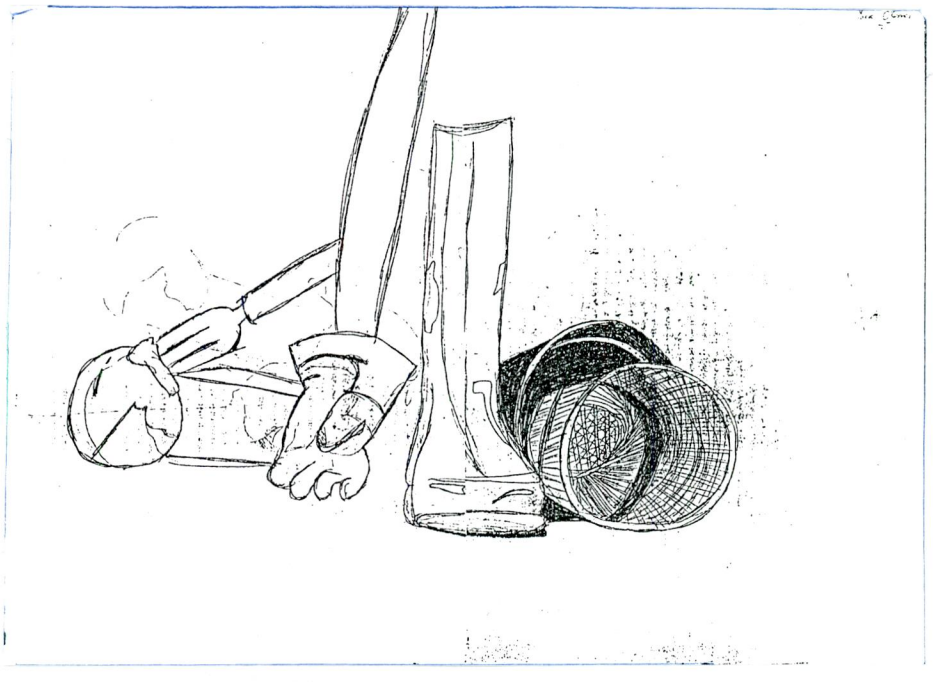
Drawing by a Second Year Boy.



This is one of the initial drawings made by pupils. Interestingly in contrast to the first years, there were no apparent sex-differences exhibited in the choices pupils made concerning which initial aspects of the still life to draw. Both boys and girls included organic and mechanical forms in their drawings. This is, I believe, as a direct result of teaching. I continually stressed the importance of variety in composition, showing examples of the work of other artists working in this medium. Despite the lack of distinction in the content of the drawings, I did observe a sex-difference in the actual execution of pupils work.

FIGURE 4.18

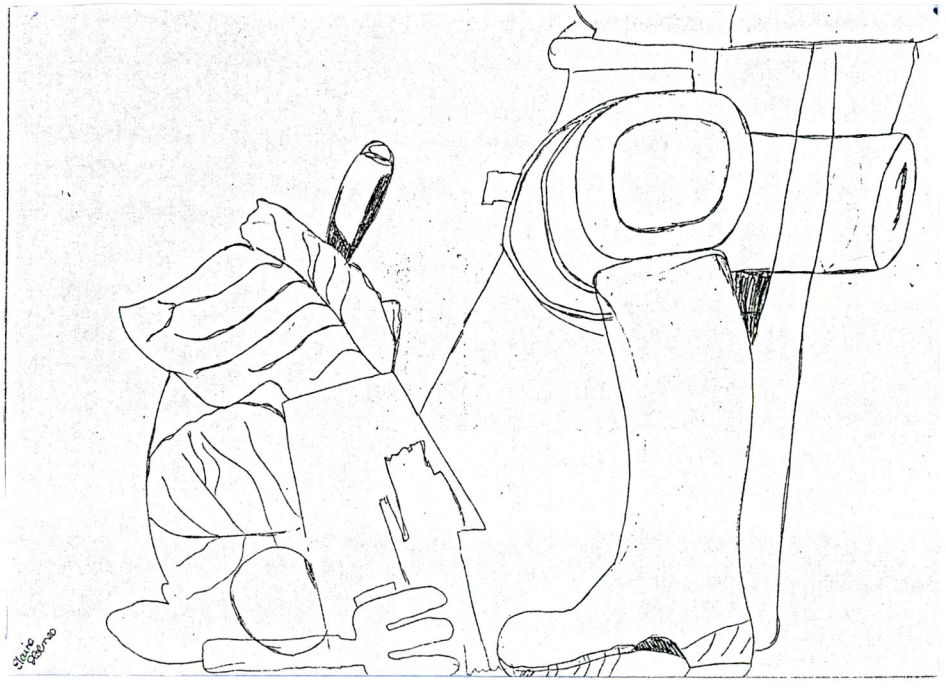
Drawing by a Second Year Girl.



Compare figure 4.18 to 4.17, it seems as though the boy's drawing was carried out in a much freer and more impetuous manner, and is full of energy of gesture. The organisation of objects in the drawing is almost haphazard. This was typical of many of the boys in the class. Figure 4.18 shows a much clearer and decisive view of the objects. The lines are deliberate and careful, shapes are very clearly delineated, the flowerpot especially has been painstakingly rendered. These qualities can again be observed in figure 4.19.

FIGURE 4.19

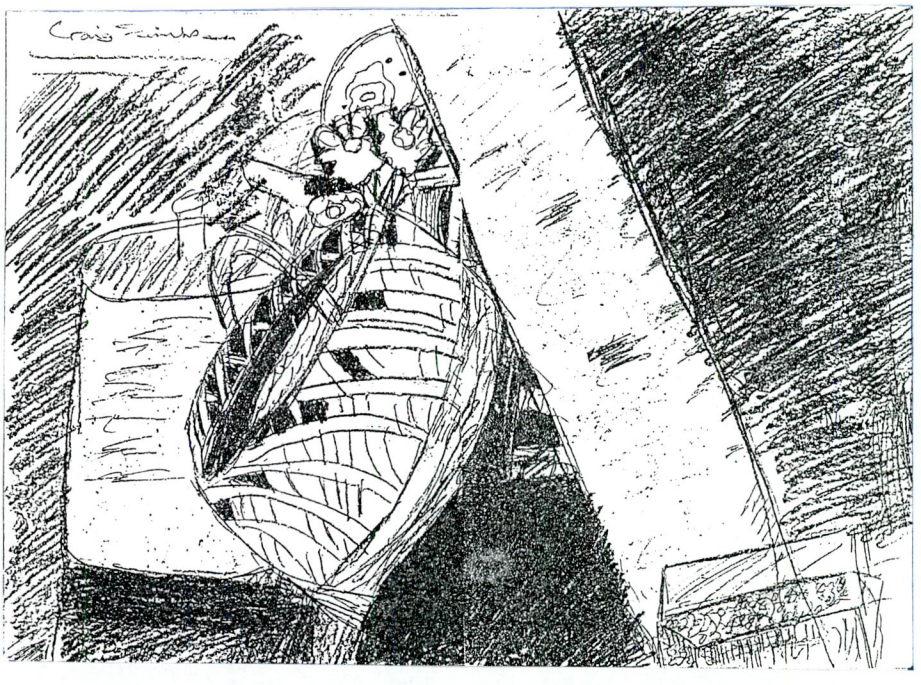
Drawing by a Second Year Girl.

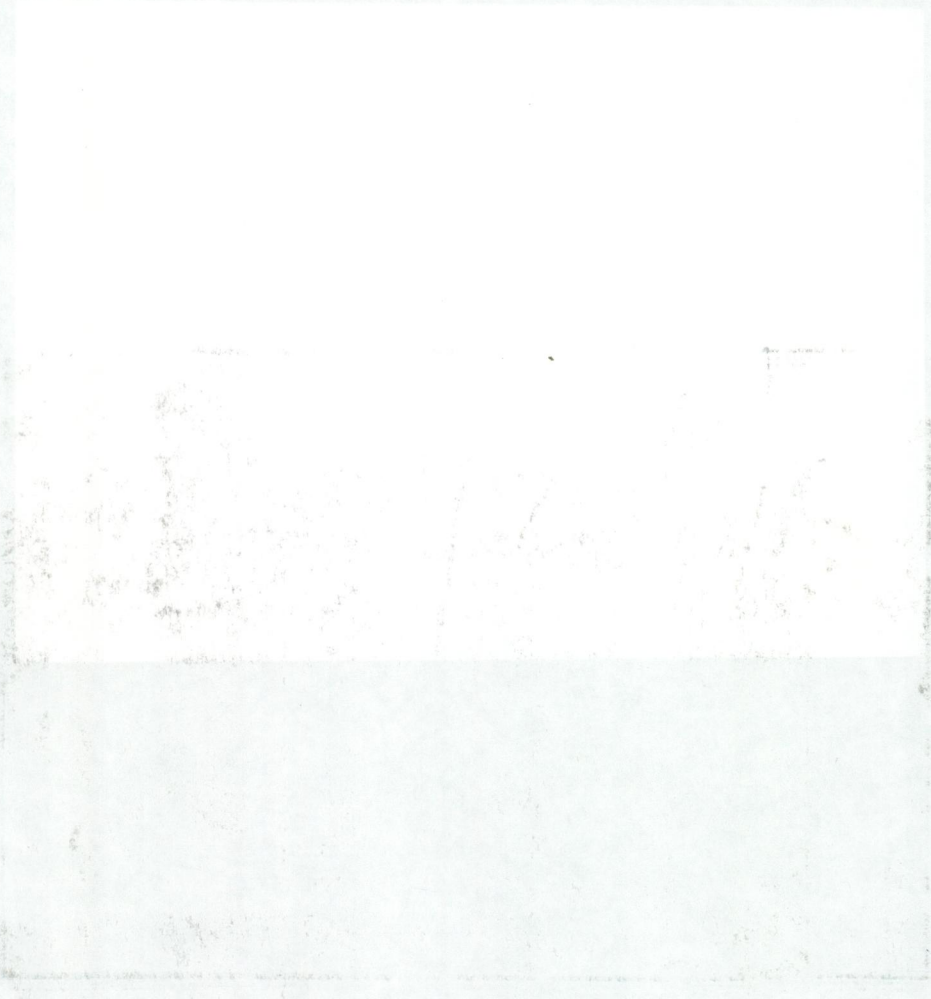


Here this girl has paid great attention to proportion and placement on the page. The shapes are clear, the lines are uncomplicated. Figure 4.20, is greatly contrasted to this, and is similar to the other boy's approach. Once again lines are forceful and infused with vigour. The entire space has been considered as in the girls drawing above. Use of the viewfinders contributed to this.

FIGURE 4.20

Drawing by a Second Year Boy.

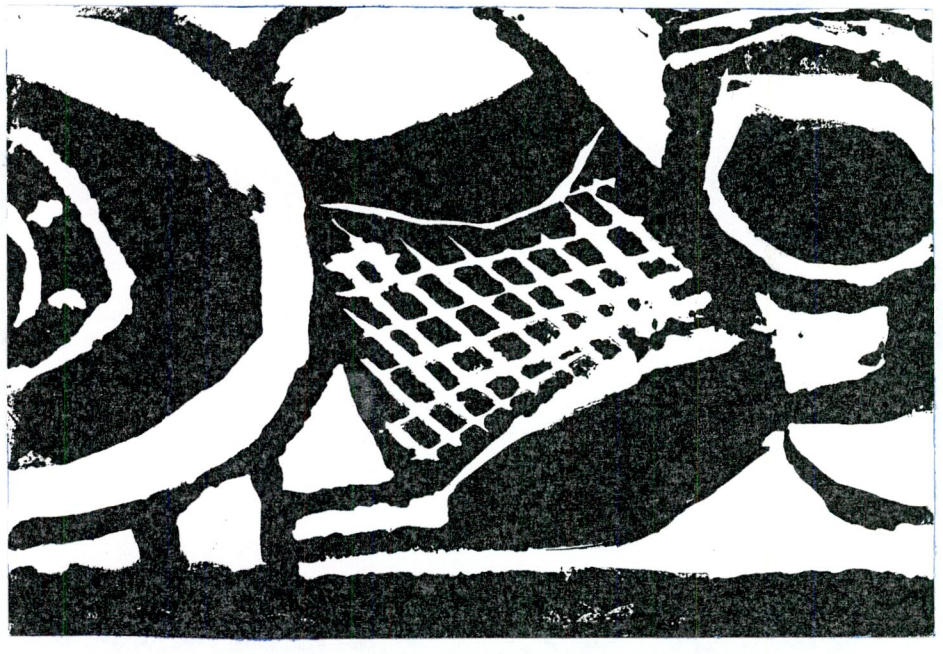




In the following lessons, pupils concentrated on designing a lino print (4" x 6"). Gradually these sex differences became less apparent, and as pupils experimented with shapes, their designs grew more abstract and less distinct. (Figure 4.21 and 4.22).

FIGURE 4.21

Lino Print by a Second Year Boy.



It is very difficult to distinguish this as the work of a boy. The same manipulation of white and black shapes exist in both.

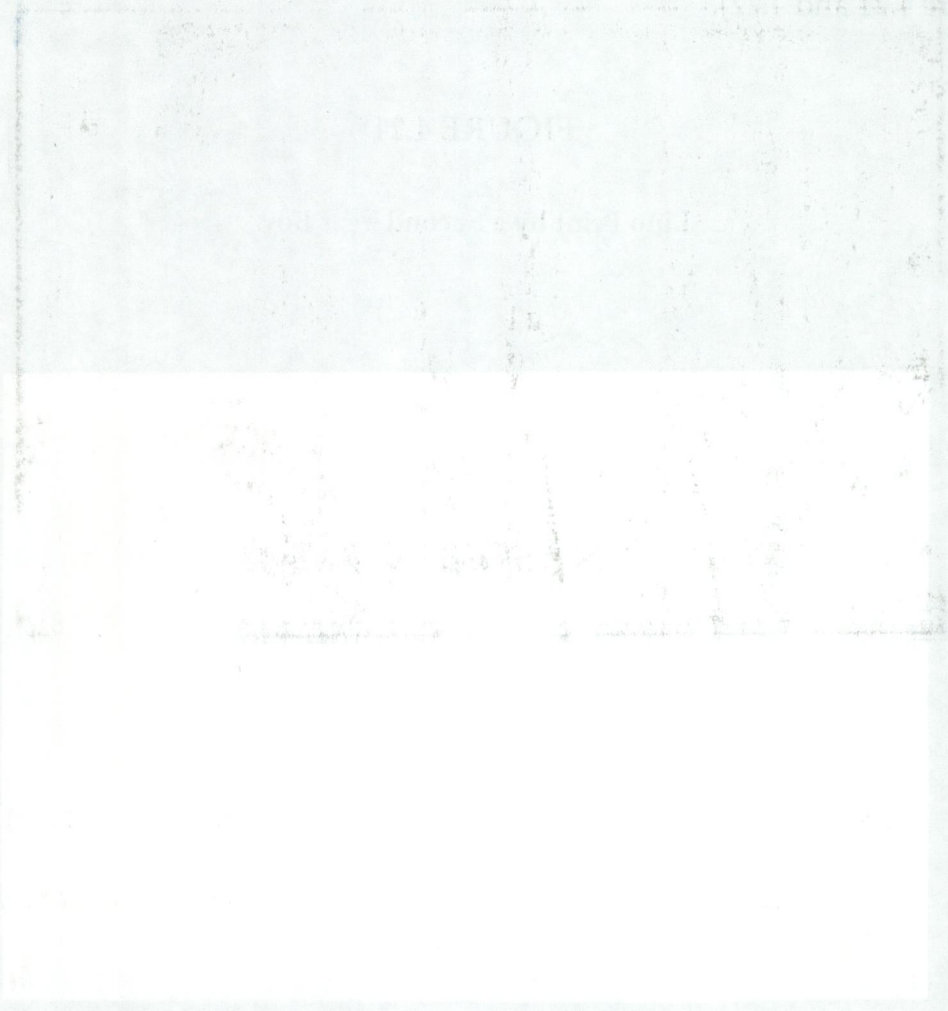
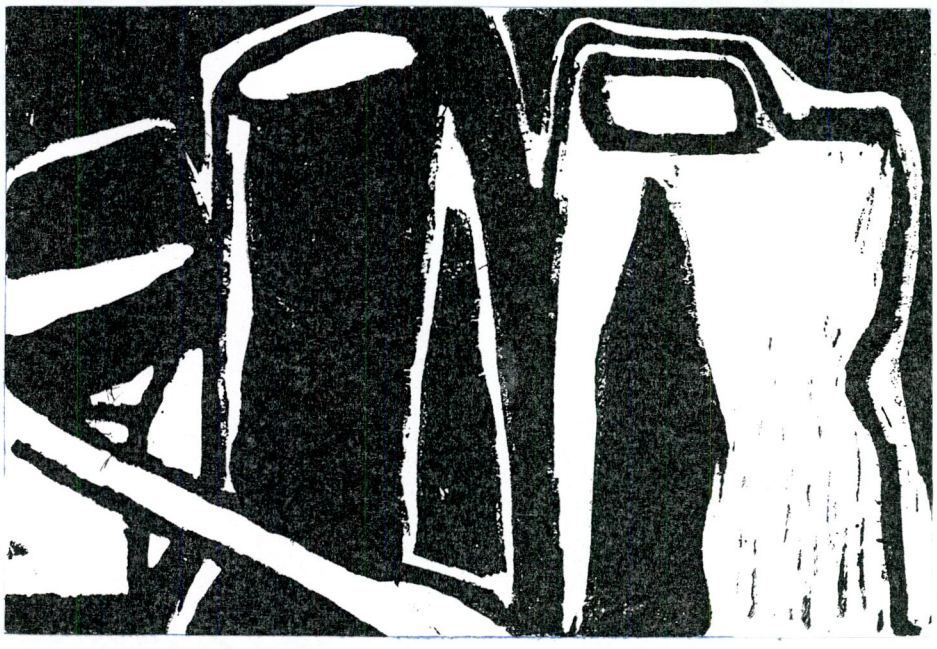


FIGURE 4.22

Lino Print by a Second Year Girl.



Where the subject matter is recognisable in the pupils prints, (this is not often so), it becomes easier to tell them apart i.e. sex differences in imagery become more apparent. In figure 4.23 especially, this girl has chosen the organic i.e. flower elements from her research drawings and makes them the subject of her lino print. In figure 4.24 the boy has focused on the artificial objects i.e. the shoe and rake.

FIGURE 4.23

Lino Print by a Second Year Girl.

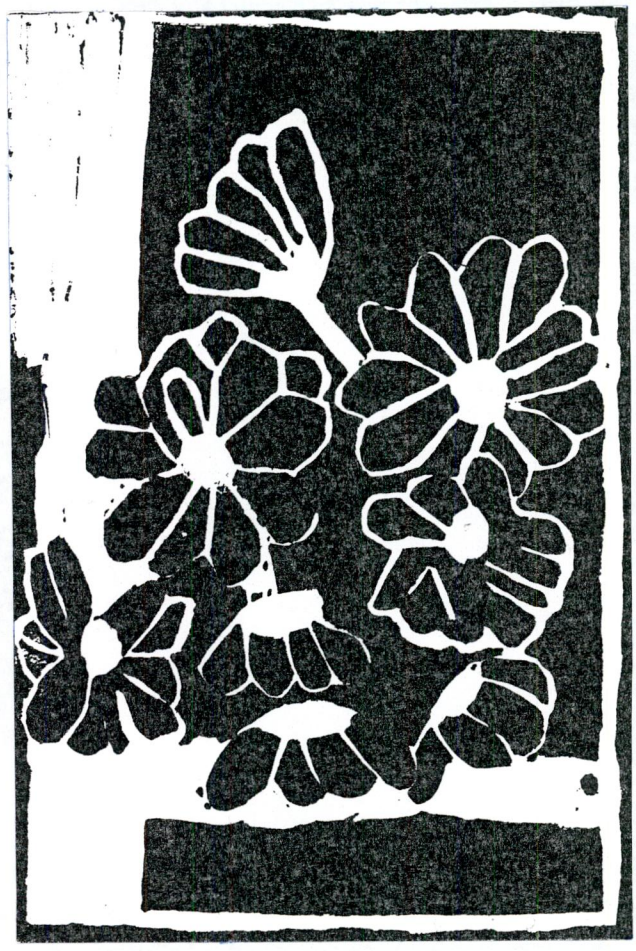


FIGURE 4.24

Lino Print by a Second Year Boy.

As in the case of first year pupils, I encountered no sex difference in the ability of these pupils to use materials, and grasp techniques, nor in their ability to manipulate art elements such as shape and line in creating their designs. This concurs with the findings of Eisner (see chapter 2) in relation to sex differences in skill and ability.

Conclusion

In this chapter I have described and analysed the results of my teaching project in detail. I have included various examples of pupils work in illustrating these points. As to how these findings will influence my approach to teaching boys and girls in the future I will discuss in the concluding chapter.

FOOTNOTES ~ CHAPTER 4

1. Hans T. Eysenck 'Aesthetic Preferences and Individual Differences' in Psychology and the Arts ed. David O'Hare, Sussex : The Harvester Press, 1981.

2. Ibid p. 79.

3. Ibid p. 81.

CHAPTER 5

CONCLUSION

Synthesis of Results

In this dissertation I have looked at the various ways in which boys and girls differ in respect of Art Education. I have examined their attitudes and suggested reasons as to why girls view art in a more favourable light. I have analysed pupil's reliance on stereotypes which I found to be equally prevalent in the artwork of both boys and girls. This, I have establihsed as the most differentiating aspect between the two sexes. I found no apparent sex difference in pupils' abilities in art, either in skill or intelligence. Boys and girls may approach such tasks as drawing and painting in different ways, but their overall ability to understand art related concepts are comparable.

In chapter 1, I concluded that stereotypes become much less rigid in adolescence and that teachers can do much to counteract them at this time. The creative growth of pupils must be fostered. There is a need for them to be original and to express their own thoughts and ideas without having to constantly fall back on stereotypes. Stereotype forces inhibit pupil's creativity, as in the restrictions they place on the personal development of people in general. It is the responsibility of the art teacher to provide boys

and girls with the opportunity to explore an equally wide range of experiences, art elements, ideas and skills, 'thus widening their definition of art'. Hatton states

> It is only after pupils have been made aware of the existence of these elements that they are in a position to make choices of their own, even if that choice is to reject all that they have been taught. That being the case, it is obvious that both boys and girls should be strongly encouraged to experiment in all areas and not to limit themselves to their initial, possibly stereotyped preferences. (1)

Similarly Eisner states that these skills become, 'through the process of learning, a part of the intellectual and aesthetic repertoire from which the child may select options for choice' (2). In the following recommendations I will discuss how teachers can approach teaching art in a non-sexist manner both in terms of the curriculum they plan and the hidden curriculum which exists as part of everyday school life.

Non Sexist Approaches to Teaching Art

The importance of familiarizing pupils with the art elements has been mentioned above. The teaching of skills is also important, pupils need to be introduced to a variety of media, tools and techniques. When planning a curriculum, teachers should not differentiate between the sexes. Thinking in terms of 'appropriateness for each sex' considerably limits the areas of study which boys and girls both need to experience, for example girls' crafts should

not only encompass the traditional embroidery, batik and pottery, they should include metalwork, (not only jewellry making) and other sculptural materials besides clay. Boys' crafts should include experiences of needlework, not only in the area of 'heavy textiles'. In drawing, all pupils should be encouraged to explore both delicate, organic objects such as plants, and hard, artificial mechanical objects too. Through all kinds of graphic projects girls can gain confidence in technical and design skills, such as measuring letters and making three dimensional constructions, for example boxes for packaging. Boys should be encouraged in the area of painting, 'showing how colour can be used emotively and symbolically gives pupils a non-verbal means of expressing emotion, which can be particularly beneficial to boys who have been conditioned to suppress their feelings'. (3)

Lessons on colour theory can also be used to make boys more aware of subtle colour combinations, and similarly to show girls the effects of strong bold colours.

The under representation of women artists in the art history and appreciation texts studied by boys and girls can promote stereotyped views on women's role in the arts. Stereotypes are even reinforced by the portrayal of women in predominantly male images. Janie Whyld states that teachers

> need to be aware of the way sexism operates in materials, so that they can redress the balance by offering carefully chosen passages or images which give less restricted presentations of women and men, or at least give verbal explanations for women's under-representation. (4)

The Hidden Curriculum

This, as discussed before is one of the most subtle ways by which stereotypes are reinforced in the classroom. Teachers must be aware that even their use of language can unwittingly contain sexism, common phrases used in art education such as 'man and his environment' and 'man-made objects' can be replaced simply by such phrases as 'people and their environment', 'human influences on the environment' and 'artificial' or 'mechanical' objects. There are plenty of alternatives. In the area of discipline where boys and girls are treated in different ways, lack of gender distinction can be achieved by applying the same standards of required behaviour to boys and girls. In practical situations such as tidy up time, boys and girls should be made to take turns in sharing tasks, Hatton states

> Co-operation between the sexes can be encouraged by careful classroom organisation . . . . . by making it clear from the outset that all pupils share the work, boys will understand that girls are not there to clear up after them and girls will understand that their sex will not protect them from messy or heavy jobs. (5)

So it can be seen that the art teacher can adopt many courses of action, teaching in a positive manner which allows for the artistic and personal growth of both boys and girls. Finally I would like to conclude with Katherine Claricoates observation . . . .

> By identifying patterns of behaviour which reinforce gender divisions within schools we can at least attempt to interrupt such patterns in order to bring about change . . . . this will include challenging our own perceptions and those of pupils and their parents. (6)

FOOTNOTES ~ CHAPTER 5

1. Jennifer Hatton in Sexism in the Secondary Curriculum e.d. Janie Whyld p.233.

2. Eisner Educating Artistic Vision p. 117.

3. Hatton in Sexism in the Secondary Curriculum p.235.

4. Whyld Sexism in the Secondary Curriculum p.73.

5. Hatton in Sexism in the Secondary Curriculum p.235.

APPENDIX 1

MALE / FEMALE CERTIFICATE EXAMINATION

RESULTS 1991

Source: Statistics Section of Department of Education, Dublin 2.

TABLE 24(a) — INTERMEDIATE CERTIFICATE RESULTS 1991 — MALE

Subject	Number of candidates receiving							Total
	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade	
Irish (H.C.)	242	1,103	2,516	2,617	494	66	10	7,048
Irish (L.C.)	287	3,471	6,198	5,293	2,469	2,238	1,161	21,117
English (H.C.)	350	1,764	5,318	5,724	818	30	2	14,006
English (L.C.)	28	1,311	6,884	5,899	1,126	167	12	15,427
Mathematics A	845	2,640	3,333	2,274	427	62	—	9,581
Mathematics B	1,647	4,547	4,306	2,561	844	298	39	14,242
Mathematics C	450	1,923	2,239	1,260	206	27	—	6,105
History 1	3,253	4,066	3,793	3,222	1,688	1,165	230	17,417
History 2	1,549	2,066	1,854	1,740	1,004	660	124	8,997
Geography 1	1,958	5,062	5,285	3,775	1,435	623	161	18,299
Geography 2	474	1,660	2,423	2,215	1,161	588	174	8,695
Latin	182	202	175	119	46	23	9	756
Greek	—	—	2	6	3	1	—	12
Classical Studies	35	89	114	106	43	14	4	405
Hebrew Studies	1	2	1	—	—	2	—	6
French	932	3,374	4,884	5,378	3,222	1,639	162	19,591
German	286	1,182	1,720	1,446	590	251	32	5,507
Spanish	46	102	113	142	95	71	18	587
Italian	10	9	5	19	6	7	—	56
Art	239	937	3,453	4,284	630	86	16	9,645
Music & Musicianship A	169	570	803	635	155	22	—	2,354
Music & Musicianship B	54	59	18	3	—	3	—	137
Science A	3,878	3,991	4,558	5,279	3,572	2,737	219	24,234
Science E	111	371	631	936	640	424	99	3,212
Home Economics	41	154	306	404	164	99	16	1,184
Woodwork	273	3,150	3,645	3,539	1,088	268	31	11,994
Metalwork	371	2,466	3,651	981	206	81	28	7,784
Mechanical Drawing	1,322	3,403	4,150	4,523	1,677	1,026	320	16,421
Commerce	1,088	4,325	5,651	4,222	1,596	647	129	17,658
S.E.S.P.	2	47	33	17	2	1	—	102
Science A - ISCIP	47	84	174	190	93	9	1	598
Humanities 1 - English	3	72	201	180	33	10	—	499
Humanities 2 - Geography	11	108	200	153	25	3	—	500
Humanities 3 - History	22	123	195	126	29	6	—	501
Technology	9	25	31	54	26	—	—	145
Gaeilge Chumarsáideach	4	30	48	55	16	1	—	154

TABLE 24(b) —INTERMEDIATE CERTIFICATE RESULTS 1991 — FEMALE

Subject	Number of candidates receiving							Total
	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade	
Irish (H.C.)	452	2,293	4,245	2,892	407	41	4	10,334
Irish (L.C.)	825	5,579	5,922	3,807	1,632	1,054	240	19,059
English (H.C.)	577	2,977	7,622	5,756	447	15	1	17,395
English (L.C.)	49	2,098	6,500	3,425	380	35	—	12,487
Mathematics A	499	2,291	3,537	2,237	310	35	1	8,910
Mathematics B	1,760	4,944	4,770	2,988	939	306	40	15,747
Mathematics C	152	1,292	2,414	1,519	219	15	—	5,611
History 1	3,610	4,642	4,586	3,964	2,312	1,513	183	20,810
History 2	998	1,420	1,340	1,462	920	527	38	6,705
Geography 1	2,228	5,866	5,940	4,520	1,918	832	144	21,448
Geography 2	308	1,139	1,633	1,729	912	561	120	6,402
Latin	96	103	65	33	15	5	2	319
Greek	—	—	—	—	—	—	—	—
Classical Studies	82	70	40	36	12	11	1	252
Hebrew Studies	—	—	1	—	—	—	1	2
French	2,033	5,756	6,743	5,980	2,821	1,041	74	24,448
German	851	2,826	2,596	1,380	349	66	6	8,074
Spanish	132	183	193	201	138	99	8	954
Italian	11	13	6	14	2	1	—	47
Art	382	1,769	6,015	5,872	604	81	13	14,736
Music & Musicianship A	657	2,111	2,135	1,250	332	37	2	6,524
Music & Musicianship B	199	257	65	4	—	1	—	526
Science A	3,792	4,072	4,382	4,547	2,713	1,570	84	21,160
Science E	80	291	387	461	365	229	49	1,862
Home Economics	1,602	4,782	5,968	4,498	1,230	464	43	18,587
Woodwork	8	75	153	245	116	33	7	637
Metalwork	6	43	120	62	16	8	3	258
Mechanical Drawing	61	209	324	339	186	168	52	1,339
Commerce	1,092	5,462	6,976	5,261	1,946	633	75	21,445
S.E.S.P.	23	172	258	171	20	1	—	645
Science A - ISCIP	93	142	186	231	90	13	—	755
Humanities 1 - English	6	109	203	101	10	1	—	430
Humanities 2 - Geography	6	94	182	133	13	1	—	429
Humanities 3 - History	31	160	158	66	12	1	—	428
Technology	2	35	41	42	6	—	—	126
Gaeilge Chumarsáideach	11	51	65	29	9	—	—	165

TABLE 24(c) —INTERMEDIATE CERTIFICATE RESULTS 1991
MALE AND FEMALE

Subject	Number of candidates receiving							Total
	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade	
Irish (H.C.)	694	3,396	6,761	5,509	901	107	14	17,382
Irish (L.C.)	1,112	9,050	12,120	9,100	4,101	3,292	1,401	40,176
English (H.C.)	927	4,741	12,940	11,480	1,265	45	3	31,401
English (L.C.)	77	3,409	13,384	9,324	1,506	202	12	27,914
Mathematics A	1,344	4,931	6,870	4,511	737	97	1	18,491
Mathematics B	3,407	9,491	9,076	5,549	1,783	604	79	29,989
Mathematics C	602	3,215	4,653	2,779	425	42	—	11,716
History 1	6,863	8,708	8,379	7,186	4,000	2,678	413	38,227
History 2	2,547	3,486	3,194	3,202	1,924	1,187	162	15,702
Geography 1	4,186	10,928	11,225	8,295	3,353	1,455	305	39,747
Geography 2	782	2,799	4,056	3,944	2,073	1,149	294	15,097
Latin	278	305	240	152	61	28	11	1,075
Greek	—	—	2	6	3	1	—	12
Classical Studies	117	159	154	142	55	25	5	657
Hebrew Studies	1	2	2	—	—	2	1	8
French	2,965	9,130	11,627	11,358	6,043	2,680	236	44,039
German	1,137	4,008	4,316	2,826	939	317	38	13,581
Spanish	178	285	306	343	233	170	26	1,541
Italian	21	22	11	33	8	8	—	103
Art	621	2,706	9,468	10,156	1,234	167	29	24,381
Music & Musicianship A	826	2,681	2,938	1,885	487	59	2	8,878
Music & Musicianship B	253	316	83	7	—	4	—	663
Science A	7,670	8,063	8,940	9,826	6,285	4,307	303	45,394
Science E	191	662	1,018	1,397	1,005	653	148	5,074
Home Economics	1,643	4,936	6,274	4,902	1,394	563	59	19,771
Woodwork	281	3,225	3,798	3,784	1,204	301	38	12,631
Metalwork	377	2,509	3,771	1,043	222	89	31	8,042
Mechanical Drawing	1,383	3,612	4,474	4,862	1,863	1,194	372	17,760
Commerce	2,180	9,787	12,627	9,483	3,542	1,280	204	39,103
S.E.S.P.	25	219	291	188	22	2	—	747
Science A - ISCIP	140	226	360	421	183	22	1	1,353
Humanities 1 - English	9	181	404	281	43	11	—	929
Humanities 2 - Geography	17	202	382	286	38	4	—	929
Humanities 3 - History	53	283	353	192	41	7	—	929
Technology	11	60	72	96	32	—	—	271
Gaeilge Chumarsáideach	15	81	113	84	25	1	—	319

TABLE 25 (a) — LEAVING CERTIFICATE RESULTS 1991
ORDINARY LEVEL PAPERS — MALE*

Subject	Number of candidates receiving							Total
	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade	
1. Irish	75	1,495	4,473	6,220	2,831	1,591	313	16,998
2. English	68	926	4,710	6,174	1,195	156	8	13,237
3. Latin	—	2	5	17	4	—	—	28
4. Greek	—	—	—	1	1	—	—	2
5. French	12	504	2,485	3,126	871	146	13	7,157
6. German	1	40	178	205	53	15	1	493
7. Italian	—	—	2	—	1	—	—	3
8. Spanish	20	28	73	37	16	2	—	176
9. History	425	750	810	775	276	260	73	3,369
10. Geography	142	959	1,733	1,238	235	41	11	4,359
11. Mathematics	1,943	4,505	4,827	5,336	1,869	2,028	738	21,246
12. Applied Mathematics	39	48	34	36	25	13	5	200
13. Physics	172	562	845	943	400	274	53	3,249
14. Chemistry	32	222	388	464	187	83	17	1,393
15. Physics & Chemistry	22	57	107	123	64	48	15	436
16. Biology	140	663	1,245	1,271	648	262	18	4,247
17. Agricultural Science	—	12	106	410	157	20	1	706
18. Agricultural Economics	1	3	20	33	24	7	—	88
19. Home Economics (Scientific & Social)	4	79	321	428	125	21	4	982
20. Home Economics (General)	—	6	27	17	5	1	1	57
21. Accounting	125	532	687	554	241	143	70	2,352
22. Business Organisation	142	844	1,550	1,265	376	59	5	4,241
23. Economics	75	276	412	612	141	156	53	1,725
24. Economic History	1	4	11	17	5	5	1	44
25. Art	36	202	546	715	119	21	5	1,644
26. Music & Musicianship - A	—	—	7	26	7	3	—	43
27. Music & Musicianship - B	—	—	3	4	—	—	—	7
28. Engineering	8	317	950	498	46	8	1	1,828
29. Technical Drawing	353	1,030	1,241	1,215	454	148	23	4,464
30. Construction Studies	17	542	1,111	451	54	12	—	2,187
31. Hebrew	—	—	—	1	—	—	—	1
32. Classical Studies	—	5	7	10	6	1	1	30

* Data refer to school candidates only.

TABLE 25 (b) — LEAVING CERTIFICATE RESULTS 1991
ORDINARY LEVEL PAPERS — FEMALE*

Subject	Number of candidates receiving							Total
	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade	
1. Irish	311	3,545	6,837	5,818	1,667	601	71	18,850
2. English	106	1,465	5,823	5,039	659	58	4	13,154
3. Latin	—	—	1	—	—	—	—	1
4. Greek	—	—	—	—	—	—	—	—
5. French	24	1,054	4,153	4,902	1,138	166	4	11,441
6. German	—	138	320	237	32	4	—	731
7. Italian	—	—	2	2	2	—	—	6
8. Spanish	18	49	133	119	17	—	—	336
9. History	362	528	565	611	242	229	85	2,622
10. Geography	112	654	1,360	1,047	271	58	13	3,515
11. Mathematics	2,154	5,182	5,943	6,777	2,223	2,298	749	25,326
12. Applied Mathematics	9	8	10	7	4	—	—	38
13. Physics	31	125	150	152	65	50	9	582
14. Chemistry	26	172	271	184	81	19	3	756
15. Physics & Chemistry	6	16	27	21	8	9	1	88
16. Biology	293	1,287	2,037	2,111	968	437	22	7,155
17. Agricultural Science	—	—	24	63	36	4	—	127
18. Agricultural Economics	—	1	—	3	2	—	—	6
19. Home Economics (Scientific & Social)	87	965	1,877	1,360	218	27	4	4,538
20. Home Economics (General)	18	157	360	237	50	6	—	828
21. Accounting	216	1,019	1,223	875	340	162	46	3,881
22. Business Organisation	165	1,149	2,258	1,897	561	86	8	6,124
23. Economics	63	178	258	338	82	76	16	1,011
24. Economic History	—	2	7	2	2	1	—	14
25. Art	69	324	937	1,062	154	28	4	2,578
26. Music & Musicianship - A	—	4	53	115	19	3	—	194
27. Music & Musicianship - B	—	3	19	6	—	—	—	28
28. Engineering	—	—	25	30	2	—	—	57
29. Technical Drawing	10	29	32	34	22	3	1	131
30. Construction Studies	—	8	22	31	3	—	—	64
31. Hebrew	—	—	—	—	—	—	—	—
32. Classical Studies	—	1	1	1	3	1	—	7

* Data refer to school candidates only.

TABLE 25 (c) — LEAVING CERTIFICATE RESULTS 1991
ORDINARY LEVEL PAPERS — MALE AND FEMALE*

Subject	Number of candidates receiving							Total
	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade	
1. Irish	386	5,040	11,310	12,038	4,498	2,192	384	35,848
2. English	174	2,391	10,533	11,213	1,854	214	12	26,391
3. Latin	—	2	6	17	4	—	—	29
4. Greek	—	—	—	1	1	—	—	2
5. French	36	1,558	6,638	8,028	2,009	312	17	18,598
6. German	1	178	498	442	85	19	1	1,224
7. Italian	—	—	4	2	3	—	—	9
8. Spanish	38	77	206	156	33	2	—	512
9. History	787	1,278	1,375	1,386	518	489	158	5,991
10. Geography	254	1,613	3,093	2,285	506	99	24	7,874
11. Mathematics	4,097	9,687	10,770	12,113	4,092	4,326	1,487	46,572
12. Applied Mathematics	48	56	44	43	29	13	5	238
13. Physics	203	687	995	1,095	465	324	62	3,831
14. Chemistry	58	394	659	648	268	102	20	2,149
15. Physics & Chemistry	28	73	134	144	72	57	16	524
16. Biology	433	1,950	3,282	3,382	1,616	699	40	11,402
17. Agricultural Science	—	12	130	473	193	24	1	833
18. Agricultural Economics	1	4	20	36	26	7	—	94
19. Home Economics (Scientific & Social)	91	1,044	2,198	1,788	343	48	8	5,520
20. Home Economics (General)	18	163	387	254	55	7	1	885
21. Accounting	341	1,551	1,910	1,429	581	305	116	6,233
22. Business Organisation	307	1,993	3,808	3,162	937	145	13	10,365
23. Economics	138	454	670	950	223	232	69	2,736
24. Economic History	1	6	18	19	7	6	1	58
25. Art	105	526	1,483	1,777	273	49	9	4,222
26. Music & Musicianship - A	—	4	60	141	26	6	—	237
27. Music & Musicianship - B	—	3	22	10	—	—	—	35
28. Engineering	8	317	975	528	48	8	1	1,885
29. Technical Drawing	363	1,059	1,273	1,249	476	151	24	4,595
30. Construction Studies	17	550	1,133	482	57	12	—	2,251
31. Hebrew	—	—	—	1	—	—	—	1
32. Classical Studies	—	6	8	11	9	2	1	37

* Data refer to school candidates only.

TABLE 25 (d) — LEAVING CERTIFICATE RESULTS 1991
HIGHER LEVEL PAPERS — MALE*

Subject	Number of candidates receiving							Total
	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade	
1. Irish	138	773	1,819	1,327	86	14	42	4,199
2. English	342	1,586	4,460	4,475	515	19	5	11,402
3. Latin	26	94	85	59	10	3	—	277
4. Greek	—	4	2	—	1	1	—	8
5. French	330	1,174	2,043	2,367	439	17	1	6,371
6. German	47	182	357	265	28	2	—	881
7. Italian	2	10	1	2	—	1	—	16
8. Spanish	50	57	68	44	4	2	—	225
9. History	190	672	1,316	1,155	286	64	15	3,698
10. Geography	255	1,010	2,757	2,550	328	34	4	6,938
11. Mathematics	328	958	1,426	1,077	217	53	12	4,071
12. Applied Mathematics	155	195	207	192	93	44	16	902
13. Physics	398	1,177	1,501	1,247	439	125	12	4,899
14. Chemistry	351	858	927	799	252	67	14	3,268
15. Physics & Chemistry	30	133	215	221	86	22	7	714
16. Biology	271	1,060	1,507	1,247	348	77	9	4,519
17. Agricultural Science	22	220	549	429	53	7	—	1,280
18. Agricultural Economics	11	17	25	25	12	6	—	96
19. Home Economics (Scientific & Social)	27	135	391	537	152	52	11	1,305
20. Home Economics (General)	—	—	5	9	3	—	—	17
21. Accounting	267	1,351	1,514	886	379	125	20	4,542
22. Business Organisation	148	901	2,059	2,035	527	77	3	5,750
23. Economics	160	594	837	868	261	153	23	2,896
24. Economic History	22	57	90	15	—	—	1	185
25. Art	71	334	788	714	147	17	2	2,073
26. Music & Musicianship - A	—	3	20	15	4	1	—	43
27. Music & Musicianship - B	6	37	33	25	1	1	—	103
28. Engineering	75	588	1,011	443	35	12	1	2,165
29. Technical Drawing	189	577	793	718	260	68	2	2,607
30. Construction Studies	131	998	1,164	230	11	—	—	2,534
31. Hebrew	1	1	3	—	—	—	—	5
32. Classical Studies	11	29	30	42	8	3	—	123

* Data refer to school candidates only.

TABLE 25 (e) — LEAVING CERTIFICATE RESULTS 1991
HIGHER LEVEL PAPERS — FEMALE*

Subject	Number of candidates receiving							Total
	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade	
1. Irish	350	1,870	3,232	1,478	61	4	4	6,999
2. English	515	2,372	6,112	4,872	428	8	2	14,309
3. Latin	15	31	17	13	1	3	—	80
4. Greek	—	—	—	—	—	—	—	—
5. French	786	2,273	3,495	2,852	416	19	—	9,841
6. German	211	607	866	414	24	—	—	2,122
7. Italian	9	20	13	6	6	—	—	54
8. Spanish	104	111	150	102	7	—	—	474
9. History	198	694	1,026	907	273	84	16	3,198
10. Geography	261	1,005	2,411	1,686	186	20	1	5,570
11. Mathematics	89	465	939	650	96	17	2	2,258
12. Applied Mathematics	11	36	28	24	16	4	1	120
13. Physics	117	494	628	521	164	49	8	1,981
14. Chemistry	163	662	859	745	239	72	6	2,746
15. Physics & Chemistry	30	106	119	105	29	10	2	401
16. Biology	536	2,196	3,651	2,871	884	194	9	10,341
17. Agricultural Science	7	28	82	48	13	5	—	183
18. Agricultural Economics	1	4	5	6	—	—	—	16
19. Home Economics (Scientific & Social)	614	2,409	4,163	3,097	543	60	10	10,896
20. Home Economics (General)	27	73	159	147	33	1	—	440
21. Accounting	149	905	1,521	1,042	358	107	2	4,084
22. Business Organisation	181	1,196	2,368	2,103	494	57	7	6,406
23. Economics	106	306	422	409	125	66	7	1,441
24. Economic History	5	16	28	4	—	—	—	53
25. Art	95	663	1,603	1,197	155	12	—	3,725
26. Music & Musicianship - A	1	14	106	134	15	1	—	271
27. Music & Musicianship - B	18	126	222	91	2	—	—	459
28. Engineering	1	7	22	7	2	1	—	40
29. Technical Drawing	3	22	28	31	9	2	—	95
30. Construction Studies	2	16	15	11	—	—	—	44
31. Hebrew	—	1	1	—	—	—	—	2
32. Classical Studies	7	18	15	7	4	—	—	51

* Data refer to school candidates only.

TABLE 25 (f) — LEAVING CERTIFICATE RESULTS 1991
HIGHER LEVEL PAPERS — MALE AND FEMALE*

Subject	Number of candidates receiving							Total
	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade	
1. Irish	488	2,643	5,051	2,805	147	18	46	11,198
2. English	857	3,958	10,572	9,347	943	27	7	25,711
3. Latin	41	125	102	72	11	6	—	357
4. Greek	—	4	2	—	1	1	—	8
5. French	1,116	3,447	5,538	5,219	855	36	1	16,212
6. German	258	789	1,223	679	52	2	—	3,003
7. Italian	11	30	14	8	6	1	—	70
8. Spanish	154	168	218	146	11	2	—	699
9. History	388	1,366	2,342	2,062	559	148	31	6,896
10. Geography	516	2,015	5,168	4,236	514	54	5	12,508
11. Mathematics	417	1,423	2,365	1,727	313	70	14	6,329
12. Applied Mathematics	166	231	235	216	109	48	17	1,022
13. Physics	515	1,671	2,129	1,768	603	174	20	6,880
14. Chemistry	514	1,520	1,786	1,544	491	139	20	6,014
15. Physics & Chemistry	60	239	334	326	115	32	9	1,115
16. Biology	807	3,256	5,158	4,118	1,232	271	18	14,860
17. Agricultural Science	29	248	631	477	66	12	—	1,463
18. Agricultural Economics	12	21	30	31	12	6	—	112
19. Home Economics (Scientific & Social)	641	2,544	4,554	3,634	695	112	21	12,201
20. Home Economics (General)	27	73	164	156	36	1	—	457
21. Accounting	416	2,256	3,035	1,928	737	232	22	8,626
22. Business Organisation	329	2,097	4,427	4,138	1,021	134	10	12,156
23. Economics	266	900	1,259	1,277	386	219	30	4,337
24. Economic History	27	73	118	19	—	—	1	238
25. Art	166	997	2,391	1,911	302	29	2	5,798
26. Music & Musicianship - A	1	17	126	149	19	2	—	314
27. Music & Musicianship - B	24	163	255	116	3	1	—	562
28. Engineering	76	595	1,033	450	37	13	1	2,205
29. Technical Drawing	192	599	821	749	269	70	2	2,702
30. Construction Studies	133	1,014	1,179	241	11	—	—	2,578
31. Hebrew	1	2	4	—	—	—	—	7
32. Classical Studies	18	47	45	49	12	3	—	174

* Data refer to school candidates only.

TABLE 26(a) — INTERMEDIATE CERTIFICATE RESULTS 1991
PERCENTAGE BREAKDOWN OF CANDIDATES
BY GRADE AWARDED IN EACH SUBJECT — MALE

Subject	Total Number of Candidates	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade
Irish (H.C.)	7,048	3.4	15.6	35.7	37.1	7.0	0.9	0.1
Irish (L.C.)	21,117	1.4	16.4	29.4	25.1	11.7	10.6	5.5
English (H.C.)	14,006	2.5	12.6	38.0	40.9	5.8	0.2	—
English (L.C.)	15,427	0.2	8.5	44.6	38.2	7.3	1.1	0.1
Mathematics A	9,581	8.8	27.6	34.8	23.7	4.5	0.6	—
Mathematics B	14,242	11.6	31.9	30.2	18.0	5.9	2.1	0.3
Mathematics C	6,105	7.4	31.5	36.7	20.6	3.4	0.4	—
History 1	17,417	18.7	23.3	21.8	18.5	9.7	6.7	1.3
History 2	8,997	17.2	23.0	20.6	19.3	11.2	7.3	1.4
Geography 1	18,299	10.7	27.7	28.9	20.6	7.8	3.4	0.9
Geography 2	8,695	5.5	19.1	27.9	25.5	13.4	6.8	2.0
Latin	756	24.1	26.7	23.1	15.7	6.1	3.0	1.2
Greek	12	—	—	16.7	50.0	25.0	8.3	—
Classical Studies	405	8.6	22.0	28.1	26.2	10.6	3.5	1.0
Hebrew Studies	6	16.7	33.3	16.7	—	—	33.3	—
French	19,591	4.8	17.2	24.9	27.5	16.4	8.4	0.8
German	5,507	5.2	21.5	31.2	26.3	10.7	4.6	0.6
Spanish	587	7.8	17.4	19.3	24.2	16.2	12.1	3.1
Italian	56	17.9	16.1	8.9	33.9	10.7	12.5	—
Art	9,645	2.5	9.7	35.8	44.4	6.5	0.9	0.2
Music & Musicianship A	2,354	7.2	24.2	34.1	27.0	6.6	0.9	—
Music & Musicianship B	137	39.4	43.1	13.1	2.2	—	2.2	—
Science A	24,234	16.0	16.5	18.8	21.8	14.7	11.3	0.9
Science E	3,212	3.5	11.6	19.6	29.1	19.9	13.2	3.1
Home Economics	1,184	3.5	13.0	25.8	34.1	13.9	8.4	1.4
Woodwork	11,994	2.3	26.3	30.4	29.5	9.1	2.2	0.3
Metalwork	7,784	4.8	31.7	46.9	12.6	2.6	1.0	0.4
Mechanical Drawing	16,421	8.1	20.7	25.3	27.5	10.2	6.2	1.9
Commerce	17,658	6.2	24.5	32.0	23.9	9.0	3.7	0.7
S.E.S.P.	102	2.0	46.1	32.4	16.7	2.0	1.0	—
Science A - ISCIP	598	7.9	14.0	29.1	31.8	15.6	1.5	0.2
Humanities 1 - English	499	0.6	14.4	40.3	36.1	6.6	2.0	—
Humanities 2 - Geography	500	2.2	21.6	40.0	30.6	5.0	0.6	—
Humanities 3 - History	501	4.4	24.6	38.9	25.1	5.8	1.2	—
Technology	145	6.2	17.2	21.4	37.2	17.9	—	—
Gaeilge Chumarsáideach	154	2.6	19.5	31.2	35.7	10.4	0.6	—

TABLE 26(b) — INTERMEDIATE CERTIFICATE RESULTS 1991
PERCENTAGE BREAKDOWN OF CANDIDATES
BY GRADE AWARDED IN EACH SUBJECT — FEMALE

Subject	Total Number of Candidates	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade
Irish (H.C.)	10,334	4.4	22.2	41.1	28.0	3.9	0.4	—
Irish (L.C.)	19,059	4.3	29.3	31.1	20.0	8.6	5.5	1.3
English (H.C.)	17,395	3.3	17.1	43.8	33.1	2.6	0.1	—
English (L.C.)	12,487	0.4	16.8	52.1	27.4	3.0	0.3	—
Mathematics A	8,910	5.6	25.7	39.7	25.1	3.5	0.4	—
Mathematics B	15,747	11.2	31.4	30.3	19.0	6.0	1.9	0.3
Mathematics C	5,611	2.7	23.0	43.0	27.1	3.9	0.3	—
History 1	20,810	17.3	22.3	22.0	19.0	11.1	7.3	0.9
History 2	6,705	14.9	21.2	20.0	21.8	13.7	7.9	0.6
Geography 1	21,448	10.4	27.3	27.7	21.1	8.9	3.9	0.7
Geography 2	6,402	4.8	17.8	25.5	27.0	14.2	8.8	1.9
Latin	319	30.1	32.3	20.4	10.3	4.7	1.6	0.6
Greek	—	—	—	—	—	—	—	—
Classical Studies	252	32.5	27.8	15.9	14.3	4.8	4.4	0.4
Hebrew Studies	2	—	—	50.0	—	—	—	50.0
French	24,448	8.3	23.5	27.6	24.5	11.5	4.3	0.3
German	8,074	10.5	35.0	32.2	17.1	4.3	0.8	0.1
Spanish	954	13.8	19.2	20.2	21.1	14.5	10.4	0.8
Italian	47	23.4	27.7	12.8	29.8	4.3	2.1	—
Art	14,736	2.6	12.0	40.8	39.8	4.1	0.5	0.1
Music & Musicianship A	6,524	10.1	32.4	32.7	19.2	5.1	0.6	—
Music & Musicianship B	526	37.8	48.9	12.4	0.8	—	0.2	—
Science A	21,160	17.9	19.2	20.7	21.5	12.8	7.4	0.4
Science E	1,862	4.3	15.6	20.8	24.8	19.6	12.3	2.6
Home Economics	18,587	8.6	25.7	32.1	24.2	6.6	2.5	0.2
Woodwork	637	1.3	11.8	24.0	38.5	18.2	5.2	1.1
Metalwork	258	2.3	16.7	46.5	24.0	6.2	3.1	1.2
Mechanical Drawing	1,339	4.6	15.6	24.2	25.3	13.9	12.5	3.9
Commerce	21,445	5.1	25.5	32.5	24.5	9.1	3.0	0.3
S.E.S.P.	645	3.6	26.7	40.0	26.5	3.1	0.2	—
Science A - ISCIP	755	12.3	18.8	24.6	30.6	11.9	1.7	—
Humanities 1 - English	430	1.4	25.3	47.2	23.5	2.3	0.2	—
Humanities 2 - Geography	429	1.4	21.9	42.4	31.0	3.0	0.2	—
Humanities 3 - History	428	7.2	37.4	36.9	15.4	2.8	0.2	—
Technology	126	1.6	27.8	32.5	33.3	4.8	—	—
Gaeilge Chumarsáideach	165	6.7	30.9	39.4	17.6	5.5	—	—

TABLE 26(c) — INTERMEDIATE CERTIFICATE RESULTS 1991
PERCENTAGE BREAKDOWN OF CANDIDATES
BY GRADE AWARDED IN EACH SUBJECT — MALE AND FEMALE

Subject	Total Number of Candidates	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade
Irish (H.C.)	17,382	4.0	19.5	38.9	31.7	5.2	0.6	0.1
Irish (L.C.)	40,176	2.8	22.5	30.2	22.7	10.2	8.2	3.5
English (H.C.)	31,401	3.0	15.1	41.2	36.6	4.0	0.1	—
English (L.C.)	27,914	0.3	12.2	47.9	33.4	5.4	0.7	—
Mathematics A	18,491	7.3	26.7	37.2	24.4	4.0	0.5	—
Mathematics B	29,989	11.4	31.6	30.3	18.5	5.9	2.0	0.3
Mathematics C	11,716	5.1	27.4	39.7	23.7	3.6	0.4	—
History 1	38,227	18.0	22.8	21.9	18.8	10.5	7.0	1.1
History 2	15,702	16.2	22.2	20.3	20.4	12.3	7.6	1.0
Geography 1	39,747	10.5	27.5	28.2	20.9	8.4	3.7	0.8
Geography 2	15,097	5.2	18.5	26.9	26.1	13.7	7.6	1.9
Latin	1,075	25.9	28.4	22.3	14.1	5.7	2.6	1.0
Greek	12	—	—	16.7	50.0	25.0	8.3	—
Classical Studies	657	17.8	24.2	23.4	21.6	8.4	3.8	0.8
Hebrew Studies	8	12.5	25.0	25.0	—	—	25.0	12.5
French	44,039	6.7	20.7	26.4	25.8	13.7	6.1	0.5
German	13,581	8.4	29.5	31.8	20.8	6.9	2.3	0.3
Spanish	1,541	11.6	18.5	19.9	22.3	15.1	11.0	1.7
Italian	103	20.4	21.4	10.7	32.0	7.8	7.8	—
Art	24,381	2.5	11.1	38.8	41.7	5.1	0.7	0.1
Music & Musicianship A	8,878	9.3	30.2	33.1	21.2	5.5	0.7	—
Music & Musicianship B	663	38.2	47.7	12.5	1.1	—	0.6	—
Science A	45,394	16.9	17.8	19.7	21.6	13.8	9.5	0.7
Science E	5,074	3.8	13.0	20.1	27.5	19.8	12.9	2.9
Home Economics	19,771	8.3	25.0	31.7	24.8	7.1	2.8	0.3
Woodwork	12,631	2.2	25.5	30.1	30.0	9.5	2.4	0.3
Metalwork	8,042	4.7	31.2	46.9	13.0	2.8	1.1	0.4
Mechanical Drawing	17,760	7.8	20.3	25.2	27.4	10.5	6.7	2.1
Commerce	39,103	5.6	25.0	32.3	24.3	9.1	3.3	0.5
S.E.S.P.	747	3.3	29.3	39.0	25.2	2.9	0.3	—
Science A - ISCIP	1,353	10.3	16.7	26.6	31.1	13.5	1.6	0.1
Humanities 1 - English	929	1.0	19.5	43.5	30.2	4.6	1.2	—
Humanities 2 - Geography	929	1.8	21.7	41.1	30.8	4.1	0.4	—
Humanities 3 - History	929	5.7	30.5	38.0	20.7	4.4	0.8	—
Technology	271	4.1	22.1	26.6	35.4	11.8	—	—
Gaeilge Chumarsáideach	319	4.7	25.4	35.4	26.3	7.8	0.3	—

TABLE 27(a) — LEAVING CERTIFICATE RESULTS 1991
PERCENTAGE BREAKDOWN OF CANDIDATES
BY GRADE AWARDED IN EACH SUBJECT
ORDINARY LEVEL PAPERS — MALE *

Subject	Total Number of Candidates	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade
1. Irish	16,998	0.4	8.8	26.3	36.6	16.7	9.4	1.8
2. English	13,237	0.5	7.0	35.6	46.6	9.0	1.2	0.1
3. Latin	28	—	7.1	17.9	60.7	14.3	—	—
4. Greek	2	—	—	—	50.0	50.0	—	—
5. French	7,157	0.2	7.0	34.7	43.7	12.2	2.0	0.2
6. German	493	0.2	8.1	36.1	41.6	10.8	3.0	0.2
7. Italian	3	—	—	66.7	—	33.3	—	—
8. Spanish	176	11.4	15.9	41.5	21.0	9.1	1.1	—
9. History	3,369	12.6	22.3	24.0	23.0	8.2	7.7	2.2
10. Geography	4,359	3.3	22.0	39.8	28.4	5.4	0.9	0.3
11. Mathematics	21,246	9.1	21.2	22.7	25.1	8.8	9.5	3.5
12. Applied Mathematics	200	19.5	24.0	17.0	18.0	12.5	6.5	2.5
13. Physics	3,249	5.3	17.3	26.0	29.0	12.3	8.4	1.6
14. Chemistry	1,393	2.3	15.9	27.9	33.3	13.4	6.0	1.2
15. Physics & Chemistry	436	5.0	13.1	24.5	28.2	14.7	11.0	3.4
16. Biology	4,247	3.3	15.6	29.3	29.9	15.3	6.2	0.4
17. Agricultural Science	706	—	1.7	15.0	58.1	22.2	2.8	0.1
18. Agricultural Economics	88	1.1	3.4	22.7	37.5	27.3	8.0	—
19. Home Economics (Scientific & Social)	982	0.4	8.0	32.7	43.6	12.7	2.1	0.4
20. Home Economics (General)	57	—	10.5	47.4	29.8	8.8	1.8	1.8
21. Accounting	2,352	5.3	22.6	29.2	23.6	10.2	6.1	3.0
22. Business Organisation	4,241	3.3	19.9	36.5	29.8	8.9	1.4	0.1
23. Economics	1,725	4.3	16.0	23.9	35.5	8.2	9.0	3.1
24. Economic History	44	2.3	9.1	25.0	38.6	11.4	11.4	2.3
25. Art	1,644	2.2	12.3	33.2	43.5	7.2	1.3	0.3
26. Music & Musicianship - A	43	—	—	16.3	60.5	16.3	7.0	—
27. Music & Musicianship - B	7	—	—	42.9	57.1	—	—	—
28. Engineering	1,828	0.4	17.3	52.0	27.2	2.5	0.4	0.1
29. Technical Drawing	4,464	7.9	23.1	27.8	27.2	10.2	3.3	0.5
30. Construction Studies	2,187	0.8	24.8	50.8	20.6	2.5	0.5	—
31. Hebrew	1	—	—	—	100.0	—	—	—
32. Classical Studies	30	—	16.7	23.3	33.3	20.0	3.3	3.3

*Data refer to School Candidates only

TABLE 27(b) — LEAVING CERTIFICATE RESULTS 1991
PERCENTAGE BREAKDOWN OF CANDIDATES
BY GRADE AWARDED IN EACH SUBJECT
ORDINARY LEVEL PAPERS —FEMALE*

Subject	Total Number of Candidates	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade
1. Irish	18,850	1.6	18.8	36.3	30.9	8.8	3.2	0.4
2. English	13,154	0.8	11.1	44.3	38.3	5.0	0.4	—
3. Latin	1	—	—	100.0	—	—	—	—
4. Greek	—	—	—	—	—	—	—	—
5. French	11,441	0.2	9.2	36.3	42.8	9.9	1.5	—
6. German	731	—	18.9	43.8	32.4	4.4	0.5	—
7. Italian	6	—	—	33.3	33.3	33.3	—	—
8. Spanish	336	5.4	14.6	39.6	35.4	5.1	—	—
9. History	2,622	13.8	20.1	21.5	23.3	9.2	8.7	3.2
10. Geography	3,515	3.2	18.6	38.7	29.8	7.7	1.7	0.4
11. Mathematics	25,326	8.5	20.5	23.5	26.8	8.8	9.1	3.0
12. Applied Mathematics	38	23.7	21.1	26.3	18.4	10.5	—	—
13. Physics	582	5.3	21.5	25.8	26.1	11.2	8.6	1.5
14. Chemistry	756	3.4	22.8	35.8	24.3	10.7	2.5	0.4
15. Physics & Chemistry	88	6.8	18.2	30.7	23.9	9.1	10.2	1.1
16. Biology	7,155	4.1	18.0	28.5	29.5	13.5	6.1	0.3
17. Agricultural Science	127	—	—	18.9	49.6	28.3	3.1	—
18. Agricultural Economics	6	—	16.7	—	50.0	33.3	—	—
19. Home Economics (Scientific & Social)	4,538	1.9	21.3	41.4	30.0	4.8	0.6	0.1
20. Home Economics (General)	828	2.2	19.0	43.5	28.6	6.0	0.7	—
21. Accounting	3,881	5.6	26.3	31.5	22.5	8.8	4.2	1.2
22. Business Organisation	6,124	2.7	18.8	36.9	31.0	9.2	1.4	0.1
23. Economics	1,011	6.2	17.6	25.5	33.4	8.1	7.5	1.6
24. Economic History	14	—	14.3	50.0	14.3	14.3	7.1	—
25. Art	2,578	2.7	12.6	36.3	41.2	6.0	1.1	0.2
26. Music & Musicianship - A	194	—	2.1	27.3	59.3	9.8	1.5	—
27. Music & Musicianship - B	28	—	10.7	67.9	21.4	—	—	—
28. Engineering	57	—	—	43.9	52.6	3.5	—	—
29. Technical Drawing	131	7.6	22.1	24.4	26.0	16.8	2.3	0.8
30. Construction Studies	64	—	12.5	34.4	48.4	4.7	—	—
31. Hebrew	—	—	—	—	—	—	—	—
32. Classical Studies	7	—	14.3	14.3	14.3	42.9	14.3	—

*Data refer to School Candidates only

TABLE 27(c) — LEAVING CERTIFICATE RESULTS 1991
PERCENTAGE BREAKDOWN OF CANDIDATES
BY GRADE AWARDED IN EACH SUBJECT
ORDINARY LEVEL PAPERS — MALE AND FEMALE*

Subject	Total Number of Candidates	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade
1. Irish	35,848	1.1	14.1	31.5	33.6	12.5	6.1	1.1
2. English	26,391	0.7	9.1	39.9	42.5	7.0	0.8	—
3. Latin	29	—	6.9	20.7	58.6	13.8	—	—
4. Greek	2	—	—	—	50.0	50.0	—	—
5. French	18,598	0.2	8.4	35.7	43.2	10.8	1.7	0.1
6. German	1,224	0.1	14.5	40.7	36.1	6.9	1.6	0.1
7. Italian	9	—	—	44.4	22.2	33.3	—	—
8. Spanish	512	7.4	15.0	40.2	30.5	6.4	0.4	—
9. History	5,991	13.1	21.3	23.0	23.1	8.6	8.2	2.6
10. Geography	7,874	3.2	20.5	39.3	29.0	6.4	1.3	0.3
11. Mathematics	46,572	8.8	20.8	23.1	26.0	8.8	9.3	3.2
12. Applied Mathematics	238	20.2	23.5	18.5	18.1	12.2	5.5	2.1
13. Physics	3,831	5.3	17.9	26.0	28.6	12.1	8.5	1.6
14. Chemistry	2,149	2.7	18.3	30.7	30.2	12.5	4.7	0.9
15. Physics & Chemistry	524	5.3	13.9	25.6	27.5	13.7	10.9	3.1
16. Biology	11,402	3.8	17.1	28.8	29.7	14.2	6.1	0.4
17. Agricultural Science	833	—	1.4	15.6	56.8	23.2	2.9	0.1
18. Agricultural Economics	94	1.1	4.3	21.3	38.3	27.7	7.4	—
19. Home Economics (Scientific & Social)	5,520	1.6	18.9	39.8	32.4	6.2	0.9	0.1
20. Home Economics (General)	885	2.0	18.4	43.7	28.7	6.2	0.8	0.1
21. Accounting	6,233	5.5	24.9	30.6	22.9	9.3	4.9	1.9
22. Business Organisation	10,365	3.0	19.2	36.7	30.5	9.0	1.4	0.1
23. Economics	2,736	5.0	16.6	24.5	34.7	8.2	8.5	2.5
24. Economic History	58	1.7	10.3	31.0	32.8	12.1	10.3	1.7
25. Art	4,222	2.5	12.5	35.1	42.1	6.5	1.2	0.2
26. Music & Musicianship - A	237	—	1.7	25.3	59.5	11.0	2.5	—
27. Music & Musicianship - B	35	—	8.6	62.9	28.6	—	—	—
28. Engineering	1,885	0.4	16.8	51.7	28.0	2.5	0.4	0.1
29. Technical Drawing	4,595	7.9	23.0	27.7	27.2	10.4	3.3	0.5
30. Construction Studies	2,251	0.8	24.4	50.3	21.4	2.5	0.5	—
31. Hebrew	1	—	—	—	100.0	—	—	—
32. Classical Studies	37	—	16.2	21.6	29.7	24.3	5.4	2.7

*Data refer to School Candidates only

TABLE 27(d) — LEAVING CERTIFICATE RESULTS 1991
PERCENTAGE BREAKDOWN OF CANDIDATES
BY GRADE AWARDED IN EACH SUBJECT
HIGHER LEVEL PAPERS — MALE *

Subject	Total Number of Candidates	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade
1. Irish	4,199	3.3	18.4	43.3	31.6	2.0	0.3	1.0
2. English	11,402	3.0	13.9	39.1	39.2	4.5	0.2	—
3. Latin	277	9.4	33.9	30.7	21.3	3.6	1.1	—
4. Greek	8	—	50.0	25.0	—	12.5	12.5	—
5. French	6,371	5.2	18.4	32.1	37.2	6.9	0.3	—
6. German	881	5.3	20.7	40.5	30.1	3.2	0.2	—
7. Italian	16	12.5	62.5	6.3	12.5	—	6.3	—
8. Spanish	225	22.2	25.3	30.2	19.6	1.8	0.9	—
9. History	3,698	5.1	18.2	35.6	31.2	7.7	1.7	0.4
10. Geography	6,938	3.7	14.6	39.7	36.8	4.7	0.5	0.1
11. Mathematics	4,071	8.1	23.5	35.0	26.5	5.3	1.3	0.3
12. Applied Mathematics	902	17.2	21.6	22.9	21.3	10.3	4.9	1.8
13. Physics	4,899	8.1	24.0	30.6	25.5	9.0	2.6	0.2
14. Chemistry	3,268	10.7	26.3	28.4	24.4	7.7	2.1	0.4
15. Physics & Chemistry	714	4.2	18.6	30.1	31.0	12.0	3.1	1.0
16. Biology	4,519	6.0	23.5	33.3	27.6	7.7	1.7	0.2
17. Agricultural Science	1,280	1.7	17.2	42.9	33.5	4.1	0.5	—
18. Agricultural Economics	96	11.5	17.7	26.0	26.0	12.5	6.3	—
19. Home Economics (Scientific & Social)	1,305	2.1	10.3	30.0	41.1	11.6	4.0	0.8
20. Home Economics (General)	17	—	—	29.4	52.9	17.6	—	—
21. Accounting	4,542	5.9	29.7	33.3	19.5	8.3	2.8	0.4
22. Business Organisation	5,750	2.6	15.7	35.8	35.4	9.2	1.3	0.1
23. Economics	2,896	5.5	20.5	28.9	30.0	9.0	5.3	0.8
24. Economic History	185	11.9	30.8	48.6	8.1	—	—	0.5
25. Art	2,073	3.4	16.1	38.0	34.4	7.1	0.8	0.1
26. Music & Musicianship - A	43	—	7.0	46.5	34.9	9.3	2.3	—
27. Music & Musicianship - B	103	5.8	35.9	32.0	24.3	1.0	1.0	—
28. Engineering	2,165	3.5	27.2	46.7	20.5	1.6	0.6	—
29. Technical Drawing	2,607	7.2	22.1	30.4	27.5	10.0	2.6	0.1
30. Construction Studies	2,534	5.2	39.4	45.9	9.1	0.4	—	—
31. Hebrew	5	20.0	20.0	60.0	—	—	—	—
32. Classical Studies	123	8.9	23.6	24.4	34.1	6.5	2.4	—

*Data refer to School Candidates only

TABLE 27(e) — LEAVING CERTIFICATE RESULTS 1991
PERCENTAGE BREAKDOWN OF CANDIDATES
BY GRADE AWARDED IN EACH SUBJECT
HIGHER LEVEL PAPERS — FEMALE*

Subject	Total Number of Candidates	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade
1. Irish	6,999	5.0	26.7	46.2	21.1	0.9	0.1	0.1
2. English	14,309	3.6	16.6	42.7	34.0	3.0	0.1	—
3. Latin	80	18.8	38.8	21.3	16.3	1.3	3.8	—
4. Greek	—	—	—	—	—	—	—	—
5. French	9,841	8.0	23.1	35.5	29.0	4.2	0.2	—
6. German	2,122	9.9	28.6	40.8	19.5	1.1	—	—
7. Italian	54	16.7	37.0	24.1	11.1	11.1	—	—
8. Spanish	474	21.9	23.4	31.6	21.5	1.5	—	—
9. History	3,198	6.2	21.7	32.1	28.4	8.5	2.6	0.5
10. Geography	5,570	4.7	18.0	43.3	30.3	3.3	0.4	—
11. Mathematics	2,258	3.9	20.6	41.6	28.8	4.3	0.8	0.1
12. Applied Mathematics	120	9.2	30.0	23.3	20.0	13.3	3.3	0.8
13. Physics	1,981	5.9	24.9	31.7	26.3	8.3	2.5	0.4
14. Chemistry	2,746	5.9	24.1	31.3	27.1	8.7	2.6	0.2
15. Physics & Chemistry	401	7.5	26.4	29.7	26.2	7.2	2.5	0.5
16. Biology	10,341	5.2	21.2	35.3	27.8	8.5	1.9	0.1
17. Agricultural Science	183	3.8	15.3	44.8	26.2	7.1	2.7	—
18. Agricultural Economics	16	6.3	25.0	31.3	37.5	—	—	—
19. Home Economics (Scientific & Social)	10,896	5.6	22.1	38.2	28.4	5.0	0.6	0.1
20. Home Economics (General)	440	6.1	16.6	36.1	33.4	7.5	0.2	—
21. Accounting	4,084	3.6	22.2	37.2	25.5	8.8	2.6	—
22. Business Organisation	6,406	2.8	18.7	37.0	32.8	7.7	0.9	0.1
23. Economics	1,441	7.4	21.2	29.3	28.4	8.7	4.6	0.5
24. Economic History	53	9.4	30.2	52.8	7.5	—	—	—
25. Art	3,725	2.6	17.8	43.0	32.1	4.2	0.3	—
26. Music & Musicianship - A	271	0.4	5.2	39.1	49.4	5.5	0.4	—
27. Music & Musicianship - B	459	3.9	27.5	48.4	19.8	0.4	—	—
28. Engineering	40	2.5	17.5	55.0	17.5	5.0	2.5	—
29. Technical Drawing	95	3.2	23.2	29.5	32.6	9.5	2.1	—
30. Construction Studies	44	4.5	36.4	34.1	25.0	—	—	—
31. Hebrew	2	—	50.0	50.0	—	—	—	—
32. Classical Studies	51	13.7	35.3	29.4	13.7	7.8	—	—

*Data refer to School Candidates only

TABLE 27(f) — LEAVING CERTIFICATE RESULTS 1991
PERCENTAGE BREAKDOWN OF CANDIDATES
BY GRADE AWARDED IN EACH SUBJECT
HIGHER LEVEL PAPERS — MALE AND FEMALE*

Subject	Total Number of Candidates	Grade A	Grade B	Grade C	Grade D	Grade E	Grade F	No Grade
1. Irish	11,198	4.4	23.6	45.1	25.0	1.3	0.2	0.4
2. English	25,711	3.3	15.4	41.1	36.4	3.7	0.1	—
3. Latin	357	11.5	35.0	28.6	20.2	3.1	1.7	—
4. Greek	8	—	50.0	25.0	—	12.5	12.5	—
5. French	16,212	6.9	21.3	34.2	32.2	5.3	0.2	—
6. German	3,003	8.6	26.3	40.7	22.6	1.7	0.1	—
7. Italian	70	15.7	42.9	20.0	11.4	8.6	1.4	—
8. Spanish	699	22.0	24.0	31.2	20.9	1.6	0.3	—
9. History	6,896	5.6	19.8	34.0	29.9	8.1	2.1	0.4
10. Geography	12,508	4.1	16.1	41.3	33.9	4.1	0.4	—
11. Mathematics	6,329	6.6	22.5	37.4	27.3	4.9	1.1	0.2
12. Applied Mathematics	1,022	16.2	22.6	23.0	21.1	10.7	4.7	1.7
13. Physics	6,880	7.5	24.3	30.9	25.7	8.8	2.5	0.3
14. Chemistry	6,014	8.5	25.3	29.7	25.7	8.2	2.3	0.3
15. Physics & Chemistry	1,115	5.4	21.4	30.0	29.2	10.3	2.9	0.8
16. Biology	14,860	5.4	21.9	34.7	27.7	8.3	1.8	0.1
17. Agricultural Science	1,463	2.0	17.0	43.1	32.6	4.5	0.8	—
18. Agricultural Economics	112	10.7	18.8	26.8	27.7	10.7	5.4	—
19. Home Economics (Scientific & Social)	12,201	5.3	20.9	37.3	29.8	5.7	0.9	0.2
20. Home Economics (General)	457	5.9	16.0	35.9	34.1	7.9	0.2	—
21. Accounting	8,626	4.8	26.2	35.2	22.4	8.5	2.7	0.3
22. Business Organisation	12,156	2.7	17.3	36.4	34.0	8.4	1.1	0.1
23. Economics	4,337	6.1	20.8	29.0	29.4	8.9	5.0	0.7
24. Economic History	238	11.3	30.7	49.6	8.0	—	—	0.4
25. Art	5,798	2.9	17.2	41.2	33.0	5.2	0.5	—
26. Music & Musicianship - A	314	0.3	5.4	40.1	47.5	6.1	0.6	—
27. Music & Musicianship - B	562	4.3	29.0	45.4	20.6	0.5	0.2	—
28. Engineering	2,205	3.4	27.0	46.8	20.4	1.7	0.6	—
29. Technical Drawing	2,702	7.1	22.2	30.4	27.7	10.0	2.6	0.1
30. Construction Studies	2,578	5.2	39.3	45.7	9.3	0.4	—	—
31. Hebrew	7	14.3	28.6	57.1	—	—	—	—
32. Classical Studies	174	10.3	27.0	25.9	28.2	6.9	1.7	—

*Data refer to School Candidates only

APPENDIX 2

QUESTIONNAIRES

QUESTIONNAIRE: 1ST YEARS AND 2ND YEARS.

Tick Box [ ] where appropriate.

1. Name .....

2. Age.....

3. Class.....

4. List the subjects you are studying in school, in order of preference i.e. your favourite subject 1st and your least favourite subject last.

A)..... F).....

B)..... G).....

C)..... H).....

D)..... I).....

E)..... J).....

5. Do you find Art:

A. Very Interesting [ ]

B. Interesting [ ]

C. Not Interesting at all. [ ]

6. Give one reason for your answer:

A) .....

7. Do you find Art:

A. Very Easy [ ]

B. Easy [ ]

C. Difficult [ ]

D. Very Difficult [ ]

8. Give one reason for your answer:

A) .....

9. In a week approximately how much time in hours, do you spend on Art Homework? .....

10. Which kind of Art Activity do you most enjoy?

A. Drawing [ ]

B. Painting [ ]

C. Designing [ ]

D. Craftwork [ ]

Put numbers 1. to 4. into each box. 1. for your favourite down to 4. for your least favourite.

11. Give one reason for your 1st choice:

A) .....

12. Give one reason for your last choice:

A) .....

13. Would you rather draw?

A.	A Building	[ ]	Put numbers 1. to 4. into
B.	A Person	[ ]	each box.
C.	An Aeroplane	[ ]	As in question 10.
D.	A Plant/Flower	[ ]	
E.	Other : Say What.....	[ ]	

14. Give one reason for your 1st choice:

A) .....

15. Give one reason for your last choice:

A) .....

16. Name which Colours you most like to use in your artwork:

A) .....

B) .....

C) .....

17. Name which Colours you do not like to use in your artwork:

A) .....

B) .....

C) .....

18. Which Materials do you most like to use?

A. Pencils [ ]

B. Pastels/Chalks [ ]

C. Felt Marker [ ]

D. Paint [ ]

E. Clay [ ]

F. Other : Say which ..... [ ]

19. Do you:

A. Keep your work tidy [ ]

B. Don't mind if its messy [ ]

C. Like to keep work tidy but make mistakes [ ]

20. Can you name two Famous Artists?

A) .....

B) .....

21. Would you like to be an artist/designer when you leave school?

Yes [ ] No [ ]

QUESTIONNAIRE: 6TH YEAR.

Tick Box [ ] where appropriate.

1. Name ..... Tick Box [ ]

2. Age..... where appropriate.

3. Class.....

4. List the subjects you are studying for your Leaving Certificate, in order of preference highest to lowest:

A)..... E).....

B)..... F).....

C)..... G).....

D).....

5. Did you study Art at Inter Cert level?

Yes [ ] No [ ]

6. Why did you choose to study Art at Leaving Cert level? List 3 reasons:

A) .....

B) .....

C) .....

7. Did anyone influence you in choosing Art?

A. Parents	[ ]	D. Guidance Counsellor	[ ]
B. Teachers	[ ]	E. Other Family Member	[ ]
C. Friends	[ ]	F. No one	[ ]

8. Do you think art is important in the school curriculum?

Yes [ ] No [ ]

9. List two reasons for above answer.

A) .....

B) .....

10. Do you find Art:

A.	Very Interesting	[ ]
B.	Interesting	[ ]
C.	Not Interesting at all.	[ ]

11. Do you find Art:

A.	Very Easy	[ ]
B.	Easy	[ ]
C.	Difficult	[ ]
D.	Very Difficult	[ ]

12. In a week approximately how much time in hours, do you spend on Art, outside of class time? .....

13. Which kind of Art Activity do you Prefer?

A.	Drawing	[ ]	List preferences
B.	Painting	[ ]	highest to lowest.
C.	Designing	[ ]	
D.	Craftwork	[ ]	
E.	Other : Say which	[ ]	

14. Name one reason for your 1st choice:

A) .....

15. Name one reason for your last choice:

A) .....

16. What kinds of Subjects do you like to draw, or base your projects on? List 4 things:

A) .....

B) .....

C) .....

D) .....

17. List reasons for choosing A. B. C. and D. :

A) .....

B) .....

C) .....

D) .....

18. Are there certain things you do not enjoy drawing? Name 3.

A) .....

B) .....

C) .....

19. Give a reason for disliking A.

A) .....

20. Which Colours do you most like to use in your artwork? Name 3.

A) .....

B) .....

C) .....

21. Which Colours do you not like to use?

A) .....

B) .....

C) .....

22. What Materials do you use most?

A) .....

B) .....

C) .....

23. Do you:

A. Keep your Work Tidy [ ]

B. Don't Mind if its Messy [ ]

C. Like to Keep Work Tidy but Make Mistakes [ ]

24. Do you like your artwork to be:

A. Accurate and Realistic [ ]

B. Imaginative and not based on real life [ ]

25. Are you preparing a portfolio?

Yes [ ] No [ ]

26. Do you intend to apply to a 3rd level art college?

Yes [ ] No [ ]

27. If you answered 'no' to Q.26 say what you hope to do when you leave school: .....

28. If you answered 'yes' to Q.26 say whether you hope to pursue a career in Art.

Yes [ ] No [ ]

29. Do you think there are many types of jobs to do with Art? Name 3.

A) .....

B) .....

C) .....

30. Can you name two Famous Artists?

A) .....

B) .....

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