# ORGANISATION IN THE COMPREHENSIVE SCHOOL

# AN INVESTIGATION INTO THE EFFECTS ON CERTAIN EDUCATIONAL RESULTS OF A TRANSITION FROM A STREAMED TO AN UNSTREAMED FORM OF ORGANISATION IN A LARGE COMPREHENSIVE SCHOOL

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bу

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# INTRODUCTION

The two most important factors used to determine the group to which pupils are allocated in schools are

- (a) the pupil's chronological age
- (b) the pupil's aptitude as indicated by teacher's assessments or tests designed to indicate the pupil's general ability or attainment in one or more subjects of the curriculum.

The application of these two criteria usually results in the formation of 'streams' or 'sets' each of which is supposed to include pupils with a fairly narrow range of ability. Streaming and setting, in other words, are devices intended to secure relatively homogeneous groups for teaching purposes so that the development of each member of the same group can proceed at the same pace under the same technique of class instruction. The opposite concept is that of mixed-ability groups.

Streaming has, for a considerable number of years, been a prominent feature of the educational system in England, being practised in the older grammar schools and in the public schools. It was not, however, until the 1930's, following the publication of the Hadow Report of 1926 on The Education of the Adolescent and its advocacy of a clean break at eleven years for every child, that it became a widespread practice in state maintained schools. Prior to this, children were assigned to grades or standards in accordance with their academic achievements, the abler ones being promoted rapidly to higher standards and the duller ones being left behind if their progress was unsatisfactory. This led to a situation in which children of say eight years of age were often taught with backward children of say 13 years of age.

The word 'streaming' did not actually appear in the Hadow Report, but the report suggested that children would gain most if taught with others of their own age rather than with brighter younger children. Once the practice of grouping children by chronological age began to develop, streaming followed as a matter of course. The obvious thing was to test each child in

order to find out what he was capable of, sort them into classes accordingly and let them "flow like a stream" through the school.

Separating children of similar age into streams of homogeneous ability for purposes of instruction appeared to be so obviously a "correct procedure" that so eminent an educationalist as Sir Cyril Burt remarked that "the case for streaming is of such logical force that anyone to whom it is explained is immediately convinced."

Official recognition of streaming first appeared in the Primary School Report of 1931 which said, "The break at eleven years has rendered possible a more thorough classification of children. It is important that this opportunity should be turned to the fullest account." The report spoke of a triple track system of organisation with A, B and C classes, basing its views on Spearman's theory of intelligence. It was further suggested that the more able children, the A stream, should be placed in small classes at the age of about seven years so that they could be adequately prepared for the selection examination at the age of eleven and that the least able, the C stream, should also be taught together in small groups so that they could be given the extra remedial teaching they required. No experiment was, however, in the period in question, undertaken to test the validity of streaming. After the second world war, however, some teachers began to be dissatisfied with the system of streaming and there began a movement which gathered pace slowly in the primary schools, which held that quick and slow children gained by working together.

It also began to be seen that cultural and social factors were equally as important in the development of the individual as the inculcation of knowledge and that unwholesome social attitudes began to emerge as the result of grouping by so-called 'ability'. The importance of a class of pupils as a social group, irrespective of attainment, began to be recognised. Furthermore, evidence was accumulating to show that whatever their potential, once children entered the C stream they were likely to remain C stream children. Typical of the arguments levelled against the practice were the following, to which attention was directed by Alfred Yates in

editing a Report on Grouping in Education, sponsored by the Unesco Institute for Education, which contains a detailed study of the whole question of grouping in schools.

"No matter what labels are attached to streamed classes, the children involved quickly grasp the significance of the procedure and those who are assigned to the lower groups develop feelings of inferiority. Their motivation suffers and hence their progress is hindered.

Nor do those who are assigned to the top stream emerge unscathed. Having to justify a high rating might breed anxiety or, alternatively, some children develop inflated notions concerning their intellectual superiority.

Such gulfs as exist between the average levels of performance of upper and lower streams tend to be widened as they advance through the school. This is partly attributable to the discouragement suffered by the children in the lower streams; partly because of the tendency to assign the most effective teachers to the abler children.

However allocation to separate streams is determined, there is a tendency for children who enjoy less favourable home backgrounds to populate the lower streams. This is tantamount to imposing an extra handicap on someone who has already suffered a bad start."(i)

Those who support the practice of streaming tend to argue as follows:

"Far from damaging the morale of the children concerned streaming serves to protect them against invidious comparisons. If adequately assessed and assigned to the appropriate stream a relatively dull child works alongside others of comparable ability. In other circumstances he is likely to be discouraged by finding himself consistently outpaced and outwitted by children of considerable greater ability. The brighter children can work at their own rapid pace within a streamed organisation. If their progress is hampered by the presence in the same class of children who progress at a slower rate, they may fail to reach their full potential and may encounter frustration and begin to manifest behavioural problems.

The fact that children from 'good' homes tend to populate the higher streams and make better academic progress than children from less favourable home backgrounds is one of the facts of life. It follows from this that everything possible should be done to help the latter but not that any obstacles should be placed in the path of the former."(ii)

i. Yates, A (ed.) Grouping in Education, (1966), p.37

ii. <u>Ibid</u>. p.38

Since the early 1950's, streaming has come under closer review largely because of

- (a) the recognition that there are educational objectives of high priority other than those associated with achievements in school subjects
- (b) a less rigid adherence to theories which represent intelligence and ability as fixed unalterable characteristics

This led to an increase in the amount of research undertaken to test the relative merits of streamed groups and mixed-ability groups. In 1955,

J. C. Daniels of Nottingham University, published an account of an experiment which showed that children in the A stream of a primary school increased their Intelligence Quotient by an average figure of 7.4 points during the four years they were in the junior school, whereas the children in the C stream suffered an average depression of 12.3 points over the same period. (iii)

In 1958, W.G.A. Rudd published the results of a further study comparing the attainments and attitudes of two groups of children in the same primary school, one of which was streamed and the other not. (iv) None of the advantages claimed by the advocates of streaming could be discerned in these results.

Between 1953 and 1960 Daniels investigated the effects of streaming in the junior school on the progress of the children concerned. He compared the progress of children in two groups of schools that were matched in every way except that in one group of schools streaming was practised whereas in the other it had been abandoned on the grounds that it was not educationally sound. The results of Daniel's research, published in 1961, (v) indicated that children in the unstreamed schools improved their performances substantially in Arithmetic, Reading and English and their I.Q.'s rose by three

iii. Ibid. p.62

iv. Rudd, W.G.A., The psychological effects of streaming by attainment Brit. J. Ed. Psychol. XXVIII (1958) pp. 47-60

v. Daniels, J.C., The effects of streaming in the primary school Brit. J. Ed. Psychol. XXXI (1961) pp. 119-122

points compared with children in the streamed schools. The more-able children made slightly better progress but the less-able children made much better progress in the unstreamed schools.

- J. C. Willig, of Leicester University, in 1963, concluded that streamed children were socially disadvantaged compared with the unstreamed. (vi) They felt more resentful, were less well adjusted and mixed less.
- B. Jackson, in 1961, provided evidence to show that there is a marked correlation between streaming on the basis of ability and grouping in accordance with socio-economic status and had put this forward as a criticism of streaming. (vii)
- J. B. Douglas, in 1964, concluded that streaming by ability re-inforces the process of social selection, pointing out that children who come from well kept homes stand a greater chance of being placed in the upper streams than their measured ability would seem to justify and that, once there, are likely to stay and to improve their performance in succeeding years. Conversely, those children of similar initial, measured ability who were placed in lower streams were likely to suffer a subsequent deterioration in achievement. (viii)

A report on streaming, drawn up for the West Riding Education Authority by their Chief Education Officer, now Sir <del>Charles</del> Clegg, contained the following observation:

"To put a child into a D stream is to classify him according to his inferiority and he knows it. Those of us who would do this would hesitate to compel into one group all the children who were puny or all the girls who were plain, on the grounds that this would emphasise the deficiency to an unbearable harmful extent. It is a curious thing that when we group together children who are inferior in some way, the defective, blind, deaf, their deficiences attract sympathy and pity."(ix)

vi. Willig, J. C., Social implications of streaming in the junior school Ed., Res. V, 2 (1963) pp. 151-154

vii. Jackson, B., <u>Teachers' views on primary school streaming</u>
Ed., Res.IV,1 (1961) pp. 44-52

viii. Douglas, J.W.B., Streaming by ability, the Home and the School, London, MacGibbon & Gee (1964) p.190

ix. Clegg, A.B., Children's Attitudes to Streaming, later published in FORUM, Vol.5. No.2, Spring 1963, under its original title Streaming in Primary and Secondary Schools

In a survey carried out about this time, nine teachers out of ten, given the choice, said they would prefer to teach an unstreamed class rather than a C stream, although seven out of ten preferred to take an A stream to an unstreamed class. To this should be added the findings of Daniels who, in 1961, discovered that a large majority of primary school teachers believed that streaming was educationally sound and that dull and backward children make the best progress scholastically when taught in classes made up of children of similar ability as themselves. There is little doubt, also, as Daniels discovered, that the vast majority of teachers believe that streaming helps the bright children to make the best possible scholastic progress.

An analysis into the results of research into streaming in the primary school, carried out up to the mid-60's suggested the following to be true;

- 1. No significant difference in attainment attributable to streaming had been discovered.
- 2. Evidence concerning the personal effects upon individual pupils transferred from one stream to another pointed to the emotional tensions which accompanied the transfer.
- 3. Unstreaming a school that had been streamed had no effect on academic standards and improved the attainments of the less-gifted child.
- 4. Streaming led to the emergence of less desirable social attitudes and low streams had more than their fair share of truants and delinquents.

Nevertheless, it would be wrong to assume that the research had produced conclusive results. Apart from any other considerations, the contribution which research had been able to make towards a solution of the problem had been somewhat limited by defects in the design and conduct of the experiments. Many of the enquiries had, for instance, been carried out with inadequately small samples and over too short a period of time. Others may have failed to take into account a number of important variables. This

x. Daniels, J.C., The effects of streaming in the primary school, Brit, J.Ed.Psychol. XXXI (1961) pp. 69-78.

led to a situation in which there was sometimes enough evidence to 'discomfit the opponents of streaming or unstreaming, but never sufficient to either convince them or to overwhelm them'. For example, a Headmaster writing in the Times Educational Supplement in 1964, had this to say:

"Always in our minds is the knowledge that to segregate even into groups within a class, is to condition the children to give a certain level of response. We have no evidence that the able children suffer in any way. Unstreaming brings higher achievement from very many children. It ends discipline troubles and is a sure basis for a happy school. It is a fairer way."

At the same time another Headmaster wrote:

"In a large school, streaming is the only method to adopt to ensure that all children are receiving the maximum instruction, guidance, help, advice at their own level. The below average pupil would slow down the rate of progress of the brighter pupil."

One thing is certain, teachers of equally wide experience arrive at contradictory conclusions, perhaps for no other reason than that the so-called experience to which they refer, merely mirrors back 'old comfortable truths' they wish to discover.

One of the most important long-term investigations into the effects of streaming and non-streaming in junior schools was that begun under the auspices of the National Foundation for Education Research in 1963, which reached fruition in January, 1970 with the publication of Streaming in the Primary School. The investigation which had taken note of 5,500 children in 72 different schools, half of which were streamed and half unstreamed, concluded that whilst no significant differences in academic attainment could be found between children of comparable ability in either type of school, non-streamed schools showed significantly better results than streamed schools in ensuring better quality relationships between pupil and pupils and between teachers and pupils in outweighing the disadvantages of a poor home background and in ensuring pupil participation in non-academic activities, provided that the teachers concerned were sympathetic to non-streaming. Indeed, one of the most significant findings in the report was

the importance to be attached to the attitude of the teacher and how a change to non-streaming does not necessarily produce the desired results unless it is accompanied by a change of attitude on the part of the teacher and a change in teaching method.

Up to the mid-60's the bulk of the evidence relating to streaming and non-streaming had come from junior schools, largely because so few secondary schools, taking in all levels of ability, had engaged in non-streaming experiments. (xi) Indeed, the idea that they should do so was in the mid-60's a revolutionary and unacceptable idea to most educationalists, a fact which, no doubt, prompted Pedley to write "If non-streaming works up to the age of eleven years, need it be cut short there? There is every reason to expect that classes of mixed ability will gradually be tried out in the first three years of the secondary school, not merely in 'non-academic' subjects but in the basic subjects too." (xii)

Up to this time there had been very few attempts to abandon streaming in all-ability secondary schools in favour of genuine mixed-ability teaching, as opposed to 'banding', except in subjects such as Games, Physical Education, Religious Instruction, Music, Art and Craft. There had been some experiments with classes of mixed-ability in comprehensive schools but they had not gone far and it would have been extremely difficult, if not impossible, to find a large comprehensive school in the mid-60's that had embraced non-streaming to a sufficient extent to enable a worthwhile research project to be carried out into the effect of streaming and non-streaming on academic achievement. Indeed, the idea that pupils of V.R.Q. 130 plus and those of V.R.Q. 70-80 could be taught within the same groups in secondary schools appeared ludicrous to most educationalists at this time. (xiii) Never-

xi. As late as 1969 the Department of Education and Science could only find two secondary schools in the whole of the West Midlands area that qualified to be considered as being unstreamed for part or all of the first two years.

xii. Pedley, R., The Comprehensive School, (1963), p.92.

xiii. Pedley stated in 1963 that, although there had been some experiments with mixed-ability classes at this time, London's inspectorate dismissed with scorn the idea that it could or should continue.

theless, a few heads, faced with organising large comprehensive schools taking in pupils from unstreamed junior schools, were beginning to think seriously about the possibility of mixed-ability teaching, even though they were without previous experience of this kind of grouping and sometimes had difficulty in persuading some of their staff that it was a practical proposition.

It was against this background that the experiment which subsequently involved the teaching of all school subjects to unstreamed forms, without recourse to setting, to all pupils in the first three years, commenced at The Woodlands School, in 1962, the results of which form the basis of the present thesis. Previous experiments, set up to evaluate the effects of streaming and non-streaming on certain educational results, had compared either the results from streamed schools with results from otherwise similar non-streamed schools or results from streamed classes with those from unstreamed classes within the same school. The Woodlands experiment differed from earlier experiments in so far as it related to a school that was originally rigidly streamed and which changed gradually, over a period of several years, to one that was unstreamed, the comparisons being made between a streamed situation, an intermediate stage involving parallel forms extending over limited parts of the ability range and, finally, a completely unstreamed situation. (xiv) It also differed from most other attempts to move from a streamed to an unstreamed form of organisation in so far as no 'a priori' decisions were made concerning the adoption of new teaching methods or the modification of syllabuses. As was stated at the time, "If in addition to changing the structure of the system, entirely new methods had been adopted, there would have been no way of deciding whether

xiv. The N.F.E.R.'s Report, Streaming in the Primary School by Joan Barker Lunn did include a reference to a study of three junior schools which had changed from streaming to non-streaming, the chief conclusion being that "where changes are to be introduced there needs to be full consultation with the staff and that new approaches and different techniques of instruction will only arise out of discussion and inservice training and not from a simple organisational 'fait accompli'-p. 271.

the results achieved were occasioned by a change of structure or of method." One consequence is that no large scale changes in teaching techniques accompanied the organisational changes from streaming to unstreaming that constitute that part of The Woodlands experiment with which the present thesis is concerned. The results, therefore, enable a comparison to be made between pupils in streamed and unstreamed groups which were taught under a similar system of class teaching. (xv)

A third feature of The Woodlands experiment which should not be over-looked resides in the fact that, particularly in the early stages, full staff consultation took place through the medium of staff meetings and approval was obtained before proceeding to the next stage of what was at that time seen to be an incredibly bold experiment. The result was that, although not all staff were originally in favour of unstreaming, the beneficial social effects soon became so apparent that the staff were unanimous in their view that it was a desirable thing to proceed. This was indicated in that part of a report drawn up by Her Majesty's Inspectors when they visited the school in 1970, dealing with staff attitudes:

"The Woodlands staff, after an inevitable period of doubt and hesitation, have with rare exception come to accept the value of the experiment they are engaged in and lend it their whole-hearted support. Few now express any wish to revert to a system of streaming. This attitude has undoubtedly been a potent factor in establishing the foundations of future success."

It is important to bear this in mind in view of the findings contained within the N.F.E.R.'s <u>Streaming in the Primary School</u> where it is stated that 'the missing factor in most previous studies was the attitude of the teacher' and that this could make all the difference between success and failure in the unstreamed situation.

xv. After the visit to the school by a team of H.M.I.'s in 1970 when attention was drawn to the need to re-consider teaching methods and to find techniques more appropriate to the unstreamed situation, new approaches were introduced that were based on the concept of individual learning as opposed to class teaching.

The third and final report of the National Foundation's comprehensive school project, set up in 1966, and entitled A Critical Appraisal of

Comprehensive Education contains some interesting observations about the effects of streaming and unstreaming but indicates that as far as academic achievement is concerned the evidence from comprehensive schools is inconclusive. (xvi) The suggestion is made that it may well be necessary to await the results of the Banbury experiment which seeks to provide a controlled study of parallel streamed and unstreamed groups in the age range 11 - 15 years. The report did point out, however, that 'the balance of advantage as far as social development is concerned lies with the unstreamed secondary school' and that 'there is some indication that the introduction of mixed ability teaching reduces the tendency for a delinquent sub-culture to develop'. (xvii)

An additional factor in The Woodlands experiment is the physical house-system which enables the academic and pastoral and social aspects of the life of the school to be brought together in a more harmonious way than may be possible under alternative forms of organisation. The mixed-ability house-form has shown itself to be a powerful influence, providing pupils with a sense of security and a focus for their loyalties when they enter what must be for many of them a very large and confusing school community.

The evidence from The Woodlands experiment is concerned entirely with the effects on certain educational indicators of a transition from a streamed to an unstreamed form of organisation and is not inconclusive. There is a strong indication that a non-streamed form of organisation, operated by a school staff that believes in and is dedicated to the idea of non-streaming, who do not see the pupils' worth primarily in terms of academic achievement in school subjects in the early years and yet who retain the basic techniques of class teaching as their principal method of instruc-

xvi. See page 176 of the N.F.E.R.'s report published in 1972.

This is also confirmed in The Woodlands experiment where H.M.I.'s who visited the school in 1968 described the less-able pupils as 'indistinguishable in attitude or appearance from the rest of the school.'

tion, represents a more favourable structure than does a streamed form of organisation for ensuring subsequent academic achievement, including that of the so-called able pupil.

# PART ONE

# BACKGROUND TO THE STUDY

# THE WOODLANDS SCHOOL

- 1. The School
- 2. The pupils
- 3. The house system
- 4. Academic organisation
- 5. The organisation of work groups during the period 1954-61
- 6. The organisation of work groups during the period 1962-70

# THE SCHOOL

At the end of the war when Coventry was faced with the problem of providing school places for a large number of children, it was decided to build large secondary schools each of which would cater for up to 1,600 pupils, the so-called "all-through comprehensive school". The Woodlands School, one of two all-boys comprehensive schools in the city, was designed by the Development Group of the Ministry of Education Architects and Building Branch and was the first of these large schools to be completed. Its construction was a joint enterprise between the Coventry Education Committee and the Ministry of Education who welcomed the opportunity to investigate the design and cost problems associated with the planning of what was, in those days, regarded as a very large school. It also provided an opportunity to carry further, experiments in pre-fabricated methods of construction previously tried out in another part of the country. The first instalment of the school was of seven-form entry size, designed in 1950-51 and opened in September, 1954. The second instalment, which brought the school up to tenform entry size, was designed in 1953-54 and completed by September, 1956.

The school is built on a site occupying 55 acres, close to the city boundary and adjoining the Coventry Nature Reserve, and is just over three miles from the city centre on the Birmingham side. The catchment area served by the school includes the districts of Canley, Tile Hill and Eastern Green. On three sides of the school there are housing estates where most of the pupils live. The school buildings occupy approximately six acres of the site which has been designed in such a manner as to prevent too many pupils being at the same place at the same time by arranging the teaching accommodation in separate blocks with a variety of paths covering the area. The accommodation, which is provided in thirteen separate buildings, includes ten houses, over thirty classrooms, nine science laboratories, five engineering and metalwork rooms, four woodwork rooms, a building department, two drawing offices, four art and craft rooms, a library, four gymnasia and an open-air swimming pool. The grounds provide generous amenities for games

and athletics. The administration block which includes the headmaster's room, school offices, main hall and library is at the centre, with the teaching blocks, house blocks and gymnasia on the periphery.

The school was formed by the amalgamation of two existing schools. These were the Coventry Technical School and the Templar's Secondary Modern School, from which two schools a total of 800 boys transferred in September, 1954. An additional number of nearly 300 new entrants of age 11 years brought this total to 1,100 pupils. In the ensuing years the school population rose to its anticipated norm as approximately 300 pupils entered the school each September, although this figure has, in certain years, been either in excess of or below normal ten-form entry size because of variations in the total population having to be catered for at secondary level in the city as a whole.

# THE PUPILS

There is a clearly defined catchment area surrounding the school which can broadly be described as working class and from which most of the pupils come. It does, however, contain a measure of privately owned houses. Any boy of secondary school age who lives in the catchment area may seek admission to the school, although not all the pupils entering the school at 11 years of age live in the catchment area. If there are not sufficient children living in the area, then others, from outside, are offered 'selective' places on the evidence of the 11-plus examination results. These pupils come from areas of the city not already served by comprehensive schools. The consequence is that the pupils are drawn from a large number of primary schools, as many as 36 are represented in a typical year, of which 12 are situated within the local catchment area. All in all, the pupils form a fairly homogeneous community and the school is spared the problems that can arise from the necessity to reconcile markedly different middle class and working class values.

The numbers of children entering the school at the age of 11 years since it opened in 1954 are shown below.

	From outsic	le the area	From inside		
Entry	Selective	Non Selecti <b>v</b> e	Selective	Non Selecti <b>v</b> e	Totals
1954	62		24	192	278
55	75		23	196	294
56	72		18	198	288
57	52		39	201	292
58	42	ì	46	269	357
59	48		44	257	349
60	45		45	237	327
61	59	Andrew Control	31	188	278
62	56		30	208	294
63	58		34	153	245
64	55	34	33	159	281
65	45	43	41	179	308
66	41	49	40	154	284
67	61	31	31	173	296
68	50	23	42	189	304
69	26	19	62	199	306

The figures shown above are slightly at variance with those indicated in the analyses which follow because the latter are concerned only with those pupils who entered the school at the age of 11 years and who remained until the statutory leaving age or who completed five years in the school. During the course of each year, some pupils leave the school for various reasons and others who come to live in the catchment area are offered places. Such pupils are not included in the ensuing analyses.

In the early days, when there were fewer comprehensive schools in the city, many more selective pupils of high V.R.Q. living outside the catchment area entered the school. As the years went by, the school received a smaller number of pupils of high V.R.Q. from outside the catchment area as these had to be shared between an increasing number of comprehensive schools. The quality of the intake, as measured by the Verbal Reasoning Quotient has, therefore, over the years, dropped steadily. The following table indicates

the decline. At the same time, it should be noted that there has been a slight but progressive decline in the average V.R.Q. of all pupils of ll years of age in the city over the same period (See Appendix ii). For example, the average V.R.Q. of all pupils entering the school in 1955 was over 109 whereas by 1965 it had dropped to 103. Over the period 1955-1968 the average V.R.Q. of pupils taking the 11-plus examination in the city dropped from 110 to 100.

V.R.Q. OF SELECTIVE PUPILS

Entry	Over 125	116-125	Below 116	Totals
1954	23	59	4	86
1955	50	48	0	98
1956	23	61	6	90
1957	24	56	11	91
1958	15	67	6	88
1959	9	59	24	92
1960	25	53	12	90
1961	9	56	25	90
1962	5	55	26	86
1963	8	32	52	92
1964	6	45	<i>3</i> 7	88
1965	3	46	37	86
1966	<b>1</b> 5	45	21	81
1967	4	31	57	92
1968	1	39	52	92
1969	1	32	55	88

In considering the quality of the intake into the school, as indicated by the V.R.Q. there are, therefore, two factors to be taken into account.

# 1. The reduction in the number of selective pupils of high V.R.Q.

This is seen most clearly by noting that, although the total number of selective pupils entering the school each year has remained fairly constant, the lowest V.R.Q. of any selective pupil in the 1955 entry was 116, whereas in subsequent years, pupils of V.R.Q. as low as 101 were designated selective. (1)

<sup>1.</sup> See Part Two - Selective and non-selective pupils.

In 1955, the V.R.Q. at which the 'selective' line was drawn was 122.

In 1968, the V.R.Q. at which the 'selective' line was drawn was 108, according to information supplied by the Director of Education.

# 2. The decline in the V.R.Q. in the city as a whole over the period 1955-65

This is seen most clearly by noting that in 1955 the proportion of the total pupil population about to enter secondary schools whose V.R.Q. was above 114 was 38.7% whereas by 1968 it had dropped to 18.0% (2)

The existence of two all-boys direct grant schools and two girls grammar schools in the city has also had an effect in reducing the number of pupils of high V.R.Q. entering the comprehensive schools. It is difficult to estimate accurately the extent of the 'creaming' which takes place because of the admission to the direct grant schools of two categories of pupils - fee payers and ll-plus admissions - but on the assumption that all these boys would enter local authority schools, in the absence of the direct grant schools, the degree of creaming is 11%. (3) This figure is reflected in the number of boys who are withdrawn each year, after their parents have been informed that places have been reserved for them at The Woodlands School. In September, 1968, for instance, a total of 43 boys living either inside or outside the catchment area and who had been offered places at the school, were withdrawn and entered one or other of the direct grant schools as either fee-payers or 11-plus entrants. This was rather higher than the usual figure and it would be more realistic to think in terms of between 20 and 30 pupils being withdrawn each year in favour of the direct grant schools system. (4)

The number of outstandingly gifted pupils is, therefore, small because of the existence of the direct grant schools. There is also a slightly lower proportion than one would expect of very slow learning pupils, resul-

<sup>2.</sup> See Appendix ii - Report on Moray House Test Results.

<sup>3.</sup> If, however, only 11-plus entrants to the direct-grant schools are considered, the degree of creaming is only just over 6% as 150 boys enter the direct grant schools each year on the basis of the 11-plus examination out of a total boy population of approximately 2,400. Another 120 boys enter the direct grant schools as either fee-payers or foundation scholars.

<sup>4.</sup> Precise figures relating to pupils who enter the direct grant schools after being withdrawn are not normally available. The 1968 figures quoted above were made available by the Director of Education following a report to the Governors of the School by the Headmaster in which he expressed concern at the large numbers of able pupils who, having been offered places at the school, were then withdrawn, apparently in favour of the direct grant schools.

ting from the fact that these come only from within the school's catchment area, whereas the more able pupils are also recruited from outside it.

The features described above combine to make experimentation with mixed ability teaching less difficult at The Woodlands School than it might be in some schools.

# THE HOUSE SYSTEM

The purpose-built premises include five house blocks, each containing two houses, which form the basis of the social and pastoral organisation of the school. Each of the ten houses caters for approximately 150 boys of all ages. All teaching staff are allocated to houses where they work under the direction of the housemasters and where staff other than heads of departments assume responsibilities as house-tutors. Each housemaster is in receipt of a substantial salary allowance and is responsible for the oversight of all aspects of the pupils' education, including contacts with parents and the maintenance of records. (5)

Eight of the houses were occupied from September, 1954, when the first phase of the school was completed. Two others were added later and became available from September, 1956. The houses were named after local personalities who were concerned with politics or social or public service in the city.

In the 18 years during which the school has been open, the number of changes in housemasterships has been remarkably small. Three houses, for instance, still have the same housemaster as the day the school opened; six others have had only two housemasters in either 16 or 18 years and one house has had three housemasters. (6) The relative stability of the housemasterships may be a factor of some importance in evaluating some of the findings associated with this study, for it appears to be the case that the

<sup>5.</sup> See Appendix iii - Responsibilities of Housemasters.

<sup>6.</sup> See Appendix iv - Changes in Housemasterships over the period 1954-70

personality of the housemaster impresses itself upon the house in a manner in which that of the rest of the house staff does not. It appears to be the greatest single factor which determines the non-physical properties of a house.

The importance of the physical house system within a purpose-built comprehensive school cannot be over-estimated. It enables one to care for, keep an eye on, get to know, nurture, admonish, encourage, discipline and educate, in the widest sense, the individual child. In other words to carry out the 'needle and thread' work necessary to assist the development of the individual child and to ensure that his problems and difficulties, his ideals and aspirations, do not pass unnoticed.

The house system provides a home whose familiar sights, sounds and faces provide a sense of security for the child in a way which alternative systems do not appear to do in a large school. The sense of community which arises from belonging to a house is an important factor in the education of the pupil in the large school. Furthermore, it introduces him to a wider set of experiences than he would otherwise have were his daily contacts confined to the form or group in which he takes his lessons.

The ten houses are arranged in pairs, each pair being served by a kitchen which provides up to 200 hot meals a day. A house consists of the main houseroom together with a housemaster's room, a staff room, a sixth form study/common room and separate toilets and wash basins for staff and pupils. The main houseroom is a multi-purpose room which is used for registering the pupils, the taking of morning and afternoon assemblies, including worship and the eating of the mid-day meal. It is here also that school activities take place, including the playing of indoor games after school. It is here that parents meetings are held and interviews with the youth employment officers take place.

In allocating pupils to houses, use is made of the rank order list of Verbal Reasoning Quotients provided by the local education authority shortly after the 11-plus examination procedures have taken place. Using this list, pupils are distributed in turn to houses so that each house receives a group which is representative of all levels of ability. More recently, the procedure has been adopted of ensuring that the selective pupils are distributed in equal numbers amongst the houses. At the same time adjustments are made to enable brothers to join the same house and to ensure that not more than four or fewer than two boys from one junior school are allocated to a particular house. The house group so formed is thus of mixed ability and is in the charge of a nouse-tutor who is responsible not only for ensuring that the basic administrative procedures such as registration are carried out, but is responsible for keeping an eye on the general academic progress of the pupils and attending to matters which come under the heading of general pastoral care and welfare.

During the period when the school was streamed, the V.R.Q. rank-order list was used in similar manner for allocating pupils to houses, but the operation was slightly more complex because of the need to ensure an average of three pupils per house from each first year form. Allocations were made to forms first, by simply taking the first 30 names on the V.R.Q. rank-order list and allocating these pupils to the top first year form; taking the next 30 names and allocating these to the next-to-the-top first year form, and so on. After this procedure had been carried out, allocations of three pupils to each house from each form were made, bearing in mind the need to provide each house with a group which was representative of all levels of ability.

With the advent of non-streaming, all boys in a particular house year-group remain together for teaching purposes in all subjects during the first two years. The time-table is written in such a manner as to ensure that every member of staff in a particular house is scheduled to take the unstreamed forms in his own house for his own subject. This ensures that for at least fifty-per-cent of the time a boy in an unstreamed form is being taught by a member of the staff of his own house who will come to know him intimately as a result of contacts made in the classroom and the house.

With rare exceptions, a boy remains in the same house for the whole of his school career, though he may change his form from time to time.

# ACADEMIC ORGANISATION

For teaching porposes the school is divided into 18 departments, each in the charge of a head of department. The ranking in the following list represents, in decreasing order, the status of the departments as indicated by the departmental allowance paid to the head of the department.

1. English 3. Chemistry

Mathematics Art
Languages Music

Science Religious Education

Engineering

2. Geography
History
Physical Education
4. Biology
Geology
Economics

Woodwork Remedial

Physics

The schedule of responsibilities assigned to heads of departments by the former headmaster is described in Appendix v. This has been revised more recently along the lines indicated in the same Appendix.

The teaching accommodation is provided in eight separate teaching blocks, on the understanding that, where possible, rooms for the teaching of the same subject are grouped together. (7)

York Block containing eight classrooms, four of which are used for the teaching of Geography, three for History and one for Commerce/Economics.

Canterbury Block containing twelve classrooms, four of which are used for the teaching of Languages, five for English and three for Religious Education.

Gibralter Block containing twelve classrooms, seven of which are used for the teaching of Mathematics, two for Technical Drawing, two for Remedial teaching and one for English.

Leonardo Block containing nine Science laboratories, three Woodwork rooms, four Metalwork rooms, a Brickwork room, an Art room and two classrooms used for Science and English respectively.

Kent Block containing three Art rooms, two Woodwork rooms and a Metalwork room.

Administrative Block containing Hall, Library, Offices, Music Room and one Gymnasia.

Two un-named blocks containing one and two gymnasia respectively.

<sup>7.</sup> See Appendix xi for plan of school.

# THE ORGANISATION OF WORK GROUPS DURING THE PERIOD 1954-61

During the first eight years of its life, pupils on entering the school were placed in forms that were streamed on the basis of the Verbal Reasoning Quotient. For each pupil entering the school a quotient was provided by the local education authority and from these a rank order of names was drawn up. Those boys occupying the first thirty positions were placed in the top first year form (lA); those occupying the next thirty positions were placed in the next-to-the-top form (lB), and so on, on the understanding that all selective pupils would be placed in one of the top three forms. In determining the category of selective pupils, the education authority took into consideration, in addition to the V.R.Q., an estimate provided by the head of the junior school which consisted of assessments in respect of ability in English, Mathematics and general suitability for an academic type of education. The V.R.Q. and the heads' assessments carried equal weight in determining whether a pupil would be designated selective. This led occasionally to a pupil of high V.R.Q. not being so categorised.

The procedures adopted by the school, on receiving each yearly intake, resulted in the following hierarchical form system in the first year.

- <u>1A, 1B, 1C</u> forms which contained all the selective pupils and in which pupils in 1A and 1B studied Latin and French, whilst those in 1C studied French only.
- <u>1D</u>, <u>1E</u> forms containing above-average pupils in which French was studied.
- <u>lf, lg, lk, lk, lQ, lR</u> forms in which the majority of the below-average, average and slightly above-average pupils were distributed and in which the same subjects were studied as in lD and lE, with the exception of French. The level of achievement that was expected, varied according to the position of the form in the hierarchical system.
- <u>1S, 1T</u> remedial forms which were taught by selected members of staff who acted in the capacity of subject teachers and who took the same form for substantial numbers of periods each week.

Between 1954 and 1961 the school operated a 40-period week time-table, the subject allocations of which are to be found in Appendix vi. The staffing ratio was more generous in the early days of the school and resulted,

in some years, in there being as many as twelve first and second year forms for numbers of pupils which would now have to be contained within ten forms.

The educational philosophy behind the hierarchical form arrangement (rigid streaming) led to pupils being urged to work hard so that they might be recommended for a transfer to a higher form. Staff were made aware of the processes to be followed if they thought a pupil was deserving of promotion or demotion. This consisted of asking for a written assessment to be made by all members of staff teaching a particular pupil, following which the deputy headmaster decided whether a transfer was justified.

# Year Two

The same hierarchical structure was retained throughout the second year and pupils remained in the same forms except for those who had been transferred as a consequence of re-grading. An additional form was occasionally introduced for the reception of a group of pupils who transferred from certain secondary modern schools at the age of thirteen years on the grounds that they showed exceptional promise and were considered suitable for an academic course leading to '0' level. Although these pupils had completed the second year in the secondary modern school, they were placed in a newly created second year form designated as 2D, where they repeated the second year. If there were not enough of this type of pupil to make up a full form, boys who had been in the school from the age of eleven years and who were considered worthy of promotion, were placed with them. These 'latedevelopers' as they were sometimes called, were by the time they took external examinations, one year older than other pupils in the same year and usually did very well. With few exceptions they completed what was, for them, a six year course of studies and some entered the sixth form and proceeded to university. The system of admitting such pupils died out following the appointment of a new headmaster in 1962, so that by 1964 none were being admitted. As these pupils did not enter the school at the age of eleven years, they are not included in the analysis that forms the basis of this study, but their presence in the school may be regarded as significant

in so far as the attitude of the staff towards these boys and the efforts directed towards ensuring their eventual success might be regarded as playing a part in diminishing the possibility for attainment of boys who had been in the school from the age of eleven years and who were not afforded the opportunity, by virtue of the rigid system of streaming, of doing as well as they, otherwise, might have done.

# Year Three

From the commencement of the third year the forms were re-constituted on the evidence of pupils' performance in school examinations. The forms were still strictly hierarchical but were re-designated as follows.

- 3K a form which was regarded as offering an arts bias in that its pupils studied Latin and French and one Science (Physics or Chemistry).
- <u>3L</u> a form which was regarded as offering a Science bias in that Physics and Chemistry or Biology were studied.
- 3M, 3N forms which were regarded as offering an Engineering bias in that Engineering, Technical Drawing and Mechanics were taken.

The majority of selective pupils were re-distributed amongst the top three forms, the exception being in the case of pupils who were obviously not of selective calibre.

- <u>3P</u> a form which was regarded as offering a Building bias and in which Brickwork, Plumbing and Joinery were taken.
- 30, 3R forms having no particular bias and following a curriculum which was less academic than the top forms and in which pupils took Building, an Art or Craft subject with Technical Drawing.
- 3S, 3T and in certain years 3V, 3X, 3Z forms of less able pupils described as educationally backward who were taught by specifically chosen members of staff for English, Mathematics, History, Geography on a class basis.

The work-group system retained its hierarchical structure throughout the third year and each form followed a specific time-table. The only option that was available was in respect of Music, Art, Metalwork, Agricultural Science, Woodwork and Building, from which group pupils in certain forms were asked to choose one subject which they then pursued for the next two or three years depending on the length of time they remained at school. (8)

<sup>8.</sup> See Appendix vi for subject allocations, including options.

### Year Four

The arrangement described for year three continued, for the most part, unchanged into the fourth year except for the demotion and promotion of pupils under the accepted system of transfer. The system of form teaching was modified slightly by the introduction of setting in Mathematics which enabled pupils to be allocated to sets according to their considered ability in this subject, although the setting only operated across the top four or five forms.

Between 1954 and 1962 it was possible for a pupil to leave school on attaining the statutory leaving age at either Christmas or Easter or July, and because, as a consequence, the numbers in certain lower ability forms dropped, it was sometimes the custom to amalgamate two forms after Easter. This procedure explains why the lower fourth year forms relevant to the 1957, 1958 and 1959 entries, for instance, did undergo more changes than would normally be accounted for by ordinary transfers.

# Year Five

The fifth form system followed the pattern of the early years for those pupils who remained beyond the statutory leaving age.

- 5K, 5L Arts and Science biased forms containing largely selective pupils who followed a rigid time-table having only the single option chosen in the third year in craft subjects.
- 5M, 5N Engineering biased forms, but not parallel, following the same time-table as that commenced in the third year.
- $\underline{5P}$  a Building biased form containing pupils regarded as non-academic in their inclinations.
- 5R a form consisting of either non-examinees or pupils who were entered for only one or two non-academic subjects at '0' level.

Although these forms were streamed, a system of setting was in operation throughout the fifth year in English and Mathematics, with all pupils taking these subjects at the same time and being allocated to sets according to their ability.

It was not until 1963 that the school entered any of its pupils for examinations other than the General Certificate of Education, so that pupils entering the school between 1954 and 1957 were entered for 'O' level sub-

jects or no examination at all at the end of the fifth year. Between 1954 and 1962, pupils were entered for varying numbers of '0' level subjects according to their considered merit, so that a boy in 5K might be entered for as many as ten subjects, but others, whether in 5K or not, might be entered for fewer than this, including one subject only.

The number of pupils completing the fifth year was always contained within six forms between 1954 and 1962, even though some of the forms were numerically rather small. This reflected the fact that the staffing ratio was more generous during the first eight years of the school's life, partly because there were so few comprehensive schools in the city and the local education authority was determined to do its best in terms of material resources to make the schools work successfully. It was also the case that the total number of pupils in the school fluctuated and, having appointed staff appropriate to a large intake, they tended to remain for a number of years afterwards because of the undesirability or impracticability of reducing by transfer to other schools, numbers of staff. Thus, in 1962, the new headmaster found himself with something like seven staff more than he was entitled to and during the next three years had to suffer reduction to the appropriate number.

# THE ORGANISATION OF WORK GROUPS DURING THE PERIOD 1962-70

Following the appointment of a new headmaster in September, 1962, the organisation of the work groups in the various years was modified by forming blocks of parallel forms each embracing a wide range of ability. (9) An attempt was also made, except in the first instance, to measure the pupils' ability by reference to performance in school subjects as indicated by examination results. After three years, this procedure was found to be unsatisfactory in the sense that the blocks did not contain the pupils who, by definition, they were supposed to contain. (10) It was also noted that

<sup>9.</sup> See FORUM Vol. 7., No.3. and Vol. 11., No.2. for further details.

<sup>10.</sup> See Appendix vii - Some observations on the subject of non-streaming in the comprehensive school with special reference to The Woodlands School, Coventry.

even a blocking arrangement involved the categorizing of certain pupils as being different and, by implication, less capable than others and diminished the opportunities for such pupils by comparison with those in a higher block. The blocking or banding system was, therefore, abandoned in 1965-66 in favour of a system of parallel forms in years one and two, unstreamed for all purposes. On reaching year three, the first two generations of unstreamed pupils were divided into an upper band of seven forms and a lower band of three forms, but, in September, 1969, unstreaming was extended to include year three.

In introducing this form of organisation, two objectives were sought. It was hoped firstly to foster more desirable social attitudes in the pupils, based on the belief that a pupil's attitude towards school and work are all important in determining future progress and secondly to allow each pupil to develop his particular capabilities to a greater extent so that his achievements whether in external examinations or in other spheres, would provide a more accurate reflection of his true potential. This policy was spelled out in greater detail in a document produced by a staff committee in 1965 under the title Notes for the Guidance of Staff on Unstreamed First Year Groups. (11)

The following are the changes in organisation which took place during the period 1962-70 and which were involved in changing the school from one that was rigidly streamed to one which was virtually unstreamed.

# 1962

In September, 1962, a total of 294 first year pupils entered the school, of which number, 129 had V.R.Q.'s of 108 and over. Each of these pupils was placed in one of four parallel forms designated 1A, 1B, 1C and 1D, it being understood that none of these forms was academically superior to any other. The method of doing this was to use the 11-plus rank order list and allocate boys alternately to the forms. A second group of three parallel

<sup>11.</sup> See Appendix viii for the full text of this.

forms 1E, 1F and 1G was also formed for pupils of V.R.Q. below 108, together with a 'bridge' form (1H) of less able pupils who were considered not to be academically weak enough to be placed in one of the two smaller remedial forms 1S and 1T. After one term, some adjustment was made between pupils in 1H and those in the block comprising 1E, 1F and 1G, on the evidence of an end of term examination in English, Mathematics, French, History, Geography and Science; otherwise the arrangement continued until the end of the year.

At the same time, some re-arrangement of the second year pupils was carried out, even though, as first year pupils, they had already been in a rigidly streamed situation for one year. The top three forms, 2A, 2B and 2C, were left as they were but 2D and 2E were re-constituted as parallel forms, as also were 2F and 2G. There was a lower form, 2H, in addition, and two remedial forms 2S and 2T.

Similarly, in the third year, the top three forms were left as streamed forms (3A, 3B and 3C) after removing those pupils who by the end of year two had shown that they were unlikely to proceed further to good advantage in one of the top forms. A re-arrangement of the other forms took place and two additional forms were introduced (3D<sub>1</sub> and 3D<sub>2</sub>) which, along with 3D were made into a parallel system, to embrace not only pupils who had been in the school since the age of 11 years, but some who had transferred from the secondary modern schools. Although not strictly parallel in content of ability, forms 3E, 3F, 3G and 3H were taught a common syllabus and were regarded as being parallel. The remedial forms 3S and 3T were also regarded as being parallel.

The form of organisation in years four and five was left as it previously had been, a rigidly streamed system in the belief that these pupils had been too long in the school to benefit by being re-structured within a system of parallel forms.

# 1963

In September, 1963, 245 first year pupils entered the school, of whom 118, with V.R.Q.'s between 135 and 105 inclusive, were placed in a block of four parallel forms (1A, 1B, 1C and 1D). In addition, 112 boys with V.R.Q.'s between 104 and 72 inclusive were placed in a second block of parallel forms (1E, 1F, 1G and 1H). A remedial form, 1S, was also formed.

A common syllabus was taught to all forms in the two blocks and at the end of one term, a common examination was given to them in six subjects as follows - English, Mathematics, Religious Instruction, History, Geography and Science. On the evidence of these results, a top form (1S) was formed with the intention of the pupils doing an 'O' level course in four years.

A block of five parallel forms (1T, 1H, 1W, 1L and 1N) was then formed, using the examination results, together with a small lower block of two forms (1D and 1E) and a remedial form (1A).

At the same time, the boys who had just completed one year in the school were re-organised into a top block of three parallel forms (2A, 2B and 2C), a middle block (2D, 2E and 2F), a bottom block (2G, 2H and 2K), together with a remedial form (2S), largely on the basis of the end of year examination results.

The new third year form structure was slightly modified so as to form a lower block of three parallel forms (3F, 3G and 3H), instead of two, as the previous year, leaving only one remedial form (3S).

The fourth year form system retained the structure it had in the previous year. This consisted of three top streamed forms (4A, 4B and 4C); a block of three parallel forms (4D, 4D<sub>1</sub> and 4D<sub>2</sub>); another block of four parallel forms (4E, 4F, 4G and 4H) and two parallel forms of educationally backward pupils (4S and 4T).

For the first time in the history of the school an option system was introduced for pupils in their fourth year in other subjects than practical ones. Pupils in forms 4A, 4B and 4C were permitted a choice in five subjects apart from the basic subjects of English, Mathematics, French, Religious Instruction, Physical Education and Games, which remained compulsory.

Pupils in forms 4D, 4D<sub>1</sub> and 4D<sub>2</sub> were offered a similar choice except that, for them, Physics instead of French, was included in the list of basic compulsory subjects. For pupils in the lower forms, the option consisted of a choice of practical subjects only as in earlier years. (12)

#### 1964

In September, 1964, 281 first year pupils entered the school and, because the previous year's results had made it plain that forming two blocks of parallel forms was not entirely satisfactory, it was decided to attempt to teach groups that were unstreamed across almost the entire ability range for, at least, one term. One aspect of the two-block system that gave rise to concern was the fact that second-block pupils continued to regard themselves as academically inferior to those in the top block and this prevented many boys originally placed in the second block from doing as well as they might had they been taught with boys in the top block. (13)

Accordingly, 264 pupils with V.R.Q.'s ranging between 135 and 78 inclusive were placed in nine parallel forms designated by the letters THEWODLANS. The reason for the change in nomenclature of the forms lay in the previous year's discovery that boys in Form 1A tended to regard themselves as being academically superior to those in 1B, 1C and 1D etc., in spite of being told otherwise. Similarly with boys in 1B with respect to those in 1C and 1D and so on. (14)

Each of the nine forms had pupils in them whose V.R.Q.'s ranged between (135-130) and (82-78). Another 17 boys with V.R.Q.'s less than 78 were placed in a remedial form (1A).

At the end of one term all boys in the nine parallel forms were given a common examination in the same six basic subjects as the previous year. Thus a rank order list was available over almost the entire ability range in basic school subjects with no initial prejudice arising from either blocking or streaming. No member of the staff was aware of the V.R.Q. of the boys.

<sup>12.</sup> See Appendix vi for subject allocations, including options.

<sup>13.</sup> See FORUM Vol.7., No.3., page 85.

<sup>14.</sup> Ibid. page 86.

It was the original intention to divide the pupils at the end of one term, using examination results, into two blocks of parallel forms, but the staff, by a majority of two to one, were in favour of continuing for the rest of the year with unstreamed forms. A compromise was reached and it was decided to continue with a block of eight parallel forms, taking out one lower form (1L) of some two dozen boys, in addition to the remedial form (1A). The V.R.Q. range in the eight forms was still considerable, however, extending between 135 and 84 inclusive.

There was no re-arrangement of pupils who were about to enter the second year and the pattern remained as described for the first year, with a top form (2S) going forward with the intention of completing the '0' level course in four years, instead of five.

The arrangement of third year forms remained as it had been in the second year and the fourth year forms remained as they had been in the third year. The option system, introduced the previous year, was now extended to include all pupils except those in the remedial form (4S) who followed a special time-table.

The fifth form consisted of a block of three parallel forms (5A, 5B and 5C) and a second block of two parallel forms (5D and 5D<sub>1</sub>) and a bottom form, following its own time-table (5E).

#### 1965

In September, 1965, the next logical step was taken of forming ten unstreamed forms across the whole ability range and of teaching every school subject without recourse to either streaming or setting. No remedial form was formed and the relatively small number of boys requiring remedial teaching were extracted from normal lessons in order to attend the Remedial Department. In order to select pupils for each of the ten unstreamed forms, a rank order list of Verbal Reasoning Quotients for the 308 pupils was drawn up. From this, boys were distributed in turn to forms, so that each form received a group which was representative of all levels of ability. Each form, so constituted, was assigned to a particular house and boys

remained in these house-forms throughout the period of complete unstreaming, which in the case of the 1965 entry was two years.

The pupils who, in their first year, had been taught in a block of eight parallel forms, one 'bridge' form and a remedial form, were subject to re-allocation as a consequence of reducing the number of forms from ten to nine on grounds of economy. Using the end of year examination results, a top block of six parallel forms (2T, 2H, 2W, 2O, 2N and 2D) was formed, together with a second block of two parallel forms (2S and 2L) and a remedial form (2A). These continued unchanged into the third year.

The arrangement of third year forms was amended to permit the continuance of the top form (3S) but a top block of three forms (3T, 3W and 3L) was created, together with a second block (3N, 3D and 3E). The remedial form continued as 3A.

The fourth year pattern followed that of the previous year with three separate blocks each containing three parallel forms (4A, 4B, 4C) - (4D, 4E, 4F) - (4G, 4H, 4K), together with a bottom form (4S), each pupil in the fourth year having a choice of five subjects under an option system.

The fifth year contained only five forms; a top block (5A, 5B and 5C) and a bottom block (5D and 5E), all forms being involved in the option system.

#### 1966

The 284 first year pupils who entered the school were distributed as in the previous year, amongst ten forms so as to create mixed ability groups of equal status. At the same time, the ten unstreamed groups formed the previous year were permitted to continue into the second year. The previous year's second forms also continued unchanged into the third year.

By now it had become apparent that the top form known as 3S, the previous year, would not be capable of tackling the '0' level examinations in four years, so it was, from the commencement of the fourth year, included in a top block of four forms (4S, 4T, 4W, 4L) as far as the option scheme was concerned, although the pupils remained together as a form unit for

English and Mathematics. The bottom block of three parallel forms (4N, 4D, 4E) continued, as in the third year, with a bottom form (4A), although all were included in the option system.

The fifth form consisted of a top block of three parallel forms (5A, 5B and 5C), together with a second block of two parallel forms (5D and 5E), each participating in the option system.

#### 1967

The 296 first year pupils who entered the school in September, 1967, after being arranged in ten unstreamed forms, remained together for a period of three years. Previously no group of pupils that was completely unstreamed had stayed together for more than two years. Because some reservations were later felt concerning the necessity for pupils to extend their contacts beyond the original form/tutor group, it was decided, in 1970, when the 1968 entry became third year pupils, not to permit them to continue in the same form groupings as they had been in for the previous two years, but to re-group them in unstreamed forms, except for a small group of 15 boys who were considered more suitable for remedial type work.

The 1966 entry continued into the second year in September, 1967, in their ten unstreamed forms. The second year pupils who, the previous year had been taught in unstreamed forms were now re-grouped in such a way as to form a top block of seven parallel forms (3T, 3H, 3E, 3W, 3D, 3S, 3L), together with a bottom block of three parallel forms (3A, 3N, 3O). The previous year's third year pattern was modified slightly so as to form a top block of three parallel forms (4T, 4H, 4W) and a middle block (4O, 4N, 4D) as well as a bottom block (4S, 4L, 4A) in the fourth year. Year five consisted of a top form (5A), together with two parallel forms (5B and 5C) and a lower form (5D), all participating equally in the option system.

#### 1968

The 304 first year pupils entering the school in September, 1968 were allocated to ten unstreamed forms and remained together for the next two

years. The previous year's first year intake continued unchanged into the second year on an unstreamed basis. The structure in year three was modified so as to consist of a block of six parallel forms (3T, 3H, 3W, 30, 3D, 3L), together with a lower block of two parallel forms (3E and 3N) and a 'bridge' form (3S) forming a link between the two blocks.

Pupils commencing year four were re-grouped so as to form a top form (4T), two parallel forms (4H and 4E); a middle block of four parallel forms (4W, 4S, 4D, 4L) and a lower block (4A, 4N, 4O). Year five consisted of a top block of three forms (5T, 5H, 5W) and a second block of three forms (5O, 5N, 5D), all within an option system.

#### 1969

When 306 first year pupils entered the school in September, 1969, they were allocated to ten unstreamed forms. Those who were, the previous year, in the first and second years, went forward unchanged into the second and third years respectively under a system of complete unstreaming. The previous year's third year forms went forward into the fourth year with the two lower forms (4E and 4N) not participating in the option system, but having a set time-table. Year five consisted of a top form (5T), two parallel forms (5H and 5E) and a lower block of three parallel forms (5W, 5S and 5D), all participating in an option system and being taught as forms for Physical Education, Games and Religious Instruction only, English and Mathematics being taught in sets.

#### PART TWO

# <u>A N N U A L I N T A K E</u>

- 1. The total intake
- 2. Selective and non-selective pupils
- 3. Season of birth

#### THE NATURE OF THE ANNUAL INTAKE

In considering the effects associated with the transition from streaming to non-streaming, it is first necessary to describe the nature of the annual intake over the period with which this study is concerned in order to appreciate as fully as possible the characteristics of the group of pupils being investigated and to identify those aspects of the intake which have shown variation over the whole period. These can then be taken into account in evaluating the extent to which the transition to unstreaming may be regarded as having exerted a significant influence.

The information and observations included in this section may, therefore, be regarded as, to some extent, offering additional background material to that which is to be found in the first section, being complementary to the information there provided, particularly under the section entitled The Pupils.

#### THE TOTAL INTAKE

The Woodlands School was designed to receive an annual entry of approximately 300 boys and, with the exception of the three years 1958-60, when an exceptionally large number of pupils from inside the official catchment area had to be provided for (15), it has fulfilled this role, accepting over the 11-year period, a total of 3,314 boys at the age of eleven years (16). Of this number, a total of 3,030 remained at school until, at least, the statutory leaving age and it is these pupils, distributed as in the following table, who form the basis of the study.

1960 1961 1962 1963 1964 Year 1955 1956 1957 1958 1959 1965 Total No. 283 274 277 326 329 299 256 263 209 247 267 3,030

<sup>15. 763</sup> non-selective and 135 selective pupils from inside the area had to be provided for compared with only 595 non-selective and 80 selective during the three year period previous to this. See page 5 for further details.

<sup>16.</sup> See Background to the Study - page 4.

A comparison of these figures with those to be found in the first chapter indicates that an average of almost 26 pupils per year entered the school at the age of 11 years, over the period 1955-65, and left before reaching the statutory leaving age. This number rose from 11 pupils in 1955 to 41 in 1965, indicating a greater tendency for families to move away from the area in later years compared with the earlier period when the local housing estates had not long been built.

An examination of the histograms relating to the distribution of pupils with respect to their Verbal Reasoning Quotients for each annual intake, shows that, in every instance, the normal distribution curve is skewed to the right of the mean, giving rise to annual distributions with the following mean values.

1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 Mean 109 108 107 104 104 102 104 105 103 104 103 105 V.R.Q.

These figures reveal the decline in the average V.R.Q., not only of pupils entering the school over the ll-year period, but throughout the city as a whole. (17) It should be noted, however, that the distributions were slightly more exaggerated to the right of the normal mean, in certain years, because of pupils of above-average V.R.Q. who were offered places in the school from outside the catchment area in order to make up the annual intake to ten-form entry size.

The skewed nature of the distribution over the 11-year period is more clearly seen when the percentages of pupils with V.R.Q.'s in the various ranges who entered the school are compared with the percentages to be expected if the distribution had been a normal one.

<sup>17.</sup> See page 6 and Appendix ii.

Percentages of intake in various V.R.Q. ranges to be expected if it was normally distributed, together with actual percentages

V.R.Q. range	Expected %	Actual %
Over 130	2.3	1.5
116-130	13.6	23.9
100-115	34.1	37.9
8 <b>5-</b> 99	34.1	27.9
70-85	13.6	8.8
Below 70	2.3	
Total	100.0	100.0

It is seen that, apart from the range 130 plus, the average intake over the whole period contained a greater proportion of pupils of above-average V.R.Q. and a lower proportion of pupils of below-average V.R.Q. than would be expected if the distribution had been normal. This must be seen, however, in relation to the fact that the average V.R.Q. for the city as a whole was 110 in 1955, dropping gradually to 103 by 1965. It does not detract, however, from the fact that the school received more pupils in the range 100-130 than it was entitled to expect during this period, largely because of a tendency for selective pupils and, from 1964, non-selective pupils of above-average V.R.Q. living outside the catchment area, to be offered places at the school, whereas pupils of below-average V.R.Q. living outside the area, were not offered places.

A more detailed analysis of the numbers of pupils in the various V.R.Q. ranges entering the school annually indicates that, apart from the general decline in V.R.Q. scores in the city as a whole, the number of able pupils in the V.R.Q. range over 115, who would in a tripartite area normally be expected to enter a grammar school, has fallen steadily over the years as more comprehensive schools have been built in the city. (18) It is

<sup>18.</sup> See Table on page 4 for an indication that an average of over 55 selective pupils living outside the catchment area entered the school each year over the period 1955-65. It is largely the decline in V.R.Q. quality of this group that is responsible for the drop in the number of intellectually able pupils in the range 115 plus.

noticeable, from the following table, that whilst there has been a significant decline in the numbers of pupils in the range 115 plus, a similar tendency is not to be seen in the range 100-115 where between 1962 and 1965 there was an increase. Apart from the years 1958-60 when there were larger intakes than usual, the proportion of each intake consisting of pupils in the range 85-99 has remained fairly constant, but, in recent years, the proportion of less able pupils in the range 70-85, many of whom require remedial attention, has increased. (19)

Numbers of pupils having V.R.Q.'s in various ranges

Year	1955	56	57	58	59	60	61	62	63	64	65	Total
Over 130	14	5	7	2	0	4	3	2	3	3	2	45
116 <b>-1</b> 30	84	95	83	80	67	70	62	58	34	47	45	725
100-115	106	95	98	99	125	80	89	117	100	117	124	1150
85-99	64	64	69	118	110	102	81	66	50	56	64	844
70-85	15	15	20	27	27	43	21	20	22	24	32	266
Totals	283	274	277	326	329	299	256	263	209	247	267	3030

These figures are of significance in considering the achievements, or otherwise, of the school in the periods prior to and subsequent to unstreaming in so far as they indicate that the number of intellectually able pupils entering the school in the earlier years, when the school was rigidly streamed, was greater than in the period after the transition to non-streaming took place. This is seen in the following table which shows the average annual numbers of pupils and percentages of the total intake having V.R.Q.'s in the various ranges in the two periods in question.

<sup>19.</sup> The question as to whether this is associated in any way with the teaching methods adopted in the infant and junior schools should not be overlooked.

	Average annual	number of pupils	Percentage of	total intake
V.R.Q.	<u> 1955–61</u>	1962-65	1955-61	<u> 1962–65</u>
Over 130	5	2.5	1.7	1.0
116-130	77	46	26.5	18.7
100-115	99	115	33.9	46.5
85-99	87	59	29.7	23.9
70-85	24	25	8.2	9.9

#### SELECTIVE AND NON-SELECTIVE PUPILS

One of the considerations which those who were responsible for the planning of the school took into account was the need to provide the school each year with a sufficient number of intellectually able pupils who would complete the five-year course of studies and remain for, at least, a further two years in order to pursue advanced level studies. This kind of pupil was thought of as being equivalent to those who would, in an area not served by a comprehensive school, have entered the local grammar school and was referred to as 'selective'. (20) It was estimated that the school would required to be provided with the equivalent of three forms of selective pupils annually in order to produce a viable sixth form.

Over the period 1955-65, a total of 991 selective pupils entered the school, of whom 916 remained until at least the statutory leaving age and are included in this study. In spite of a decline, over the years, in the quality of the intake as indicated by the V.R.Q., the number of pupils designated selective who have entered the school each year has remained fairly constant. This is simply the consequence of a policy which has ensured that the school was provided with the equivalent of three forms of selective pupils, even though this implied that pupils of relatively low V.R.Q. were designated selective, who, in earlier years, would not have been so described.

<sup>20.</sup> See page 11 for a description of the criteria used for defining selective pupils.

### Numbers and percentages of selective and non-selective pupils in original intakes

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
s	97	86	87	81	88	76	86	84	75	81	75	916
N-S	186	188	190	245	241	223	170	179	134	166	192	2114
% S	34.3	31.4	31.4	24.8	26.7	25.4	33.6	31.9	35.9	32.8	28.1	30.2
% N-S	65.7	68.6	68.6	75.2	73.3	74.6	66.4	68.1	64.1	67.2	71.9	69.8

The average figure of 30.2% of the total intake who, over the 11-year period, were designated selective and who are included in this study were certainly not all pupils who in a tripartite area would have entered the grammar school, (21) some of them, in more recent years, having V.R.Q.'s as low as 101. Although the average V.R.Q. of the annual entry to the school dropped during the period 1955-65 from 109 to 103, a matter of six points, the minimum V.R.Q. of pupils designated selective, varied during the same period, between 116 and 101, a matter of 15 points. At the same time the maximum V.R.Q. of selective pupils varied between 140 and 128.

An even greater variation is to be noted in the maximum V.R.Q. of non-selective pupils over the same period. This varied between 128 and 113, a matter of 15 points.

Another indicator of the fall in V.R.Q. of selective pupils compared with non-selective pupils is to be seen in the fact that the average V.R.Q. of the former group varied over the 11-year period, between 126 and 117, a matter of nine points, compared with a variation in the non-selective group between 101 and 97, a difference of only four points, confirming the tendency for the intake to be deprived of the higher V.R.Q. pupils with the passing of the years to a greater extent than would be explained by the fact that eleven year old children in the city were being assigned lower scores in V.R.Q. tests.

<sup>21.</sup> See the range of V.R.Q.'s of selective pupils in the table on page 5 for an indication that in the period after 1958 this statement became increasingly true. It has generally been assumed that the average percentage of pupils entering grammar schools in England, during the period in question, was of the order of 20% and consisted of pupils to be found to the right of one sigma above the mean of the distribution curve, i.e. V.R.Q. 115 and above.

An even better indication of the decrease in numbers of selective pupils of high V.R.Q. over the period in question is to be seen in the following table which indicates how, in recent years, more than one-third have come from the V.R.Q. range 100-115 compared with the earlier years when hardly any pupils were to be found in this range. At the same time, there was a corresponding decrease in the numbers of selective pupils in the range 116-130 where between 1955 and 1965 the numbers fell by almost fifty per cent.

In the earlier years, few selective pupils had V.R.Q.'s lower than 115, whereas since 1963, at least 30 such have been designated selective each year. Looked at another way, in 1955 all selective pupils were located in the V.R.Q. range over 115, whereas in the entries for the years 1963-65, only fifty-five per cent of all selective pupils had V.R.Q.'s in this range.

Numbers of selective pupils having V.R.Q.'s in various ranges

V.R.Q.	1955	56	57	58	<b>5</b> 9	60	61	62	63	64	65	Total
Over 130	14	5	7	2	0	4	3	2	3	3	2	45
116-130	83	80	67	73	63	62	59	56	34	43	43	663
100-115		1	13	6	25	10	24	26	<b>3</b> 8	35	30	208
Below 100												
Totals	97	86	87	81	88	76	86	84	75	81	75	916

Although the last table indicates clearly a drop in the number of selective pupils in the V.R.Q. range 116-130, it should be noted that, in relation to the total number of pupils in the entry having V.R.Q.'s in this range, the proportion designated selective has, if anything, risen slightly in recent years, indicating a decline in the numbers of non-selective pupils to be found in recent years in this range. During the period when the school was streamed, 90% of the intake having V.R.Q.'s in the range 116-130 were designated selective, compared with 95.7% during the period 1962-65, after the transition to non-streaming had commenced. This is indicated more clearly in the following table.

### Numbers of selective pupils having V.R.Q.'s in various ranges as a percentage of number in original intakes having V.R.Q.'s in those ranges

V.R.Q.	1955	56	57	58	59	60	61	62	63	64	65	Totals
Over 130	100	100	100	100	100	100	100	100	100	100	100	100.0
116-130	98.8	84.2	80.7	90.1	88.7	87.3	90.8	96.6	100	91.5	95.6	90.3
100-115		1.0	13.3	6.1	20.0	12.5	27.0	22.2	38.0	29.9	24.2	18.2
Totals	34.3	31.4	31.4	24.8	26.7	25.4	33.6	31.9	35.9	32.8	28.1	30.2

#### SEASON OF BIRTH

In considering the nature of the annual intake, reference should be made to the fact that a significantly larger number of pupils having birth-days in March entered the school over the 11-year period, as did a below-average number of October and November born pupils. (22)

A goodness-of-fit analysis applied to the numbers of pupils having birthdays at various times of the year, (23) on the assumption that the dates of birth were randomly distributed throughout the year, produced a chi-square of 6.18 which is significant at the 5% level of 5.991. This indicates that the distribution of birth dates of pupils entering the school over the period 1955-65 was not a random one and that fewer pupils born in the Autumn term and more born in the Spring term entered the school. In general terms, this implies that more pupils with birthdays in the first six months of the year entered the school than did those with dates of birth in the second half of the year. A detailed inspection of the frequencies associated with each year's intake, shows that the major contribution towards the bias in the totals for the ll-year period occurs in the entries for the years 1955-59 inclusive and in 1965. The entries for the years 1960-64 show no

<sup>22.</sup> See Table 50 in Appendix i.

<sup>23.</sup> This was carried out on a termly basis, thus giving rise to a chi-squared analysis possessing two degrees of freedom. A similar analysis conducted on a quarterly basis produced a chi-square of 7.67 which for three degrees of freedom is hardly significant at the 5% level.

<sup>24.</sup> Actual numbers were 1575 compared with 1455.

significant deviations from the mean values for the group as a whole in any of the three school terms.

A study of the number of live births for the City of Coventry over the same period, indicates, however, a similar pattern in which the March born predominate and October and November births are the lowest of all. There is the additional remarkable coincidence that exactly 51.2% of all children in both school and city totals, over the whole period, were born in the first half of the year.

Comparing the school figures with those for the city as a whole, on a termly basis, produced a chi-square of only 1.28 which is not significant and confirms the fact that the dates of birth of the school entrants reflects the pattern in the city as a whole and did not arise primarily from any selection procedure. Nevertheless, there is a greater discrepancy between the observed and expected numbers of Autumn born pupils entering the school than in the case of those born at other times of the year and the possibility that this is occasioned by a larger than average number of these pupils obtaining places at the direct grant schools should not be overlooked.

A comparison of the distributions of months of birth of selective and non-selective pupils (25) reveals a well above-average number of September born amongst those designated selective and a below-average number of October and November born amongst the non-selective group compared with what would be expected if selective and non-selective pupils were distributed randomly throughout the total intake. (26) Setting out the data on the following quarterly basis and applying the chi-squared test produced the following results. (27)

<sup>25.</sup> See Tables 51 and 52 in Appendix i

<sup>26.</sup> Compare Tables 51 and 52 with Table 50 in Appendix i

<sup>27.</sup> The calculation is set out in full in order to demonstrate the statistical process involved. Where the same technique is used in later analyses, the calculation will not be set out in full.

Observed frequencies (fo)

Expected frequencies (fe)

Quarter	S	N <b>-S</b>	Total
Dec-Feb	214	548	762
Mar-May	235	578	813
Jun-Aug	210	546	756
Sep-Nov	257	442	699
Total	916	2114	3030

Quarter	S	N-S	Total
Dec-Feb	230	532	762
Mar-May	246	567	813
Jun-Aug	229	527	756
Sep-Nov	211	488	699
Total	916	2114	3030

$$(fo - fe)^2$$

( <u>fo</u>	_	<u>fe</u> )2
	fe	

Dec-Feb	256	256	
Mar-May	121	121	
Jun-Aug	361	361	
Sep-Nov	2116	2116	

Dec-Feb	1.11	0.48	1.59
Mar-May	0.49	0.21	0.70
Jun-Aug	1.58	0.69	2.27
Sep-Nov	10.03	4.34	14.37
Total	13.21	5 <b>.7</b> 2	18.93

The resulting chi-square of 18.93 is significant beyond the one per cent level of 11.345 and indicates a significant relationship between being designated selective and being born in the quarter September/October/

November. A pupil born during this quarter is the more likely to be selective than is a pupil born at any other time of the year. Also a pupil born in the quarter June/July/August is less likely to be selective than a pupil born in any other quarter of the year.

A similar analysis conducted on a termly basis, produced a chi-square of 11.03 which is also significant at the one per cent level, (28) although not as highly significant as was the case in the previous analysis. That is to say, there is a more significant tendency for pupils born in the quarter September-November to be designated selective than there is for those born in the period September-December.

A similar analysis covering only the period 1955-61, prior to unstreaming, indicated a similar relationship that is even more significant

<sup>28.</sup> The 1% level of significance for the two degrees of freedom associated with this analysis was 9.210.

than that which obtained for the whole of the period 1955-65. (29) On the other hand, the analysis conducted in relation to the period 1962-65, after unstreaming, was found to be not significant in its results. (30)

Working on the hypothesis that the difference in these results might be due to the fact that, in recent years, increasing numbers of pupils of lower V.R.Q. have been designated selective and that it would probably be more accurate to say that a significant relationship exists between being born in the Autumn Term and having a high V.R.Q. rather than being born in the Autumn Term and being designated selective, a further analysis was carried out for the period 1962-65, in which the months of birth of pupils having V.R.Q.'s over 115 were examined. The resulting chi-square of 0.92 was not significant and indicated no tendency for pupils of V.R.Q. above 115 to be born at particular periods of the year.

The tendency for pupils born in the Autumn to be designated selective in larger numbers than those born at other times of the year is reflected in the following tables which express the number of selective pupils born in certain quarters of the year as a percentage of the total number of pupils in the original intake born in those quarters.

	The period 1955-61	The period 1962-65	The period 1955-65
Dec/Jan/Feb	26.8%	30.8%	28.1%
Mar/Apl/May	26.7%	<b>33.</b> 6%	28.9%
June/July/Aug	27.6%	28.2%	27.8%
Sept/Oct/Nov	37.6%	35.2%	<b>36.</b> 8%

The advantage accruing to pupils born in the quarter September/
October/November in respect of being designated selective is unmistakable

<sup>29.</sup> The chi-square was 12.01 compared with 11.03 for the whole period.

The chi-square only being 0.76.

The failure to find a tendency in the period 1962-65 for either selective pupils or pupils of higher V.R.Q. to be born in greater numbers in the Autumn Term may possibly be occasioned by a movement away from streaming in the junior schools so that the earlier tendency for Autumn born pupils to be placed in the top streams of junior schools, being no longer operative, has resulted in a more equitable distribution of selective pupils in the ll-plus examination results.

when the data is presented in this manner and shows how 36.8% of all pupils born in this quarter were designated selective compared with only 27.8% of those born in the period June - August who were designated selective over the 11-year period 1955-65.

It is obvious that in the period 1955-61 the advantage accruing to pupils born in the Autumn over those born at any other period was most pronounced and significant. In the period 1962-65, although the Autumn born pupil is more likely to be designated selective than those born in other quarters, it is the disadvantage accruing to those born in the period June/July/August that is most obvious.

These results are not, of course, related to the ending of streaming but reflect the nature of the intake into the school and indicate how, after 1961, the percentage of the total intake born in the late Summer which was designated selective was much smaller than the percentage of the total intake born in other quarters and designated selective.

### PART TWO

CONCLUSIONS

#### CONCLUSIONS

#### The Total Intake

- 1. It is not possible to regard the Verbal Reasoning Quotients used in these analyses as measurements in an absolute sense, having precisely the same meaning from one year to another, in view of the fact that over the period 1955-65, the mean test score achievement of Coventry children fell from 110 to 104.
- 2. Because of the decline in the mean test score achievement of Coventry children over the period 1955-65, the proportions of the total intakes into the school having apparently high V.R.Q.'s also declined over the same period.
  - This effect is most noticeable in the years 1955-57 when the mean V.R.Q. of pupils entering the school was considerably higher than subsequently and must be taken into account when considering the decline in numbers of pupils having high V.R.Q.'s. This effect may largely be discounted in considering the subsequent intakes, the mean scores of which did not vary significantly.
- 3. Whilst the conclusions stated in 1 and 2 above imply that the school appeared to receive, particularly during the years 1955-57, a higher proportion of able pupils than in subsequent years, there were other factors at work which led to a real, opposed to an apparent, decline in the numbers of pupils of higher ability entering the school.
- 4. Over the entire period 1955-65, the school did not receive a true proportion of outstandingly able pupils (V.R.Q. over 125) because of the existence of two boys' direct grant schools to which the majority of such pupils were admitted.
- 5. Over the period 1955-65, the number of intellectually able pupils who, in a tripartite area would be expected to enter the grammar school (V.R.Q. over 115) fell steadily because of a reduction in the numbers entering the school from outside the official catchment area as more comprehensive schools were built in the city.
- 6. In the period following the abandonment of streaming (1962-65), whilst the proportions of the total intake consisting of below-average pupils (V.R.Q. 70-100) and well above-average pupils (V.R.Q. over 115) deceased, the proportion of the intake consisting of slightly above-average pupils (V.R.Q. 100-115) who would normally be found in the top stream of secondary modern schools, increased.

#### Selective and Non-selective Pupils

1. Although the numbers of selective pupils entering the school remained fairly constant over the entire period 1955-65, an increasing number of these were, in recent years, pupils of relatively low V.R.Q. who would not, in a tripartite area, have been admitted to the grammar school.

#### Season of Birth

- 1. The distribution of months of birth of pupils entering the school and in the city as a whole, over the period 1955-61, was not a random one and indicated a significant tendency for more children to have birth-days in the first half of the year than in the second half. This is largely a consequence of an above-average number of pupils having birthdays in March and a below-average number having birthdays in October and November.
- 2. The distribution of the months of birth of selective and non-selective pupils over the period 1955-65 indicates a well-above average number of September born amongst those designated selective and a below-average number of October and November born amongst the non-selective group compared with what would be expected if selective and non-selective pupils were distributed randomly throughout the total intake.
- 3. The distribution of the times of birth of selective and non-selective pupils on a quarterly basis, over the period 1955-65, indicates that a pupil born during the quarter September/October/November was the more likely to be designated selective and a pupil born in the quarter June/July/August was less likely to be designated selective than a pupil born in any other quarter of the year.
- 4. The conclusions stated in 3 above are also true when the analysis is conducted on a termly basis, but the level of significance on a termly basis is not as high as on a quarterly basis. That is to say, the tendency for selective pupils to be born in greater numbers in the Autumn Term is not so significant as the tendency for them to be born within the quarter September/October/November.
- 5. Considering the intakes for the period 1955-61, prior to the abandonment of streaming, a more significant tendency is found for pupils born in the period September/October/November to be designated selective and for those born in the period June/July/August not to be designated selective, than is found for the entire period 1955-65.
- 6. Considering the intakes for the period 1962-65, following the abandonment of streaming, no significant tendency is found for selective and non-selective pupils to be born in particular quarters of the year. Nevertheless, there is still to be seen a non-significant tendency for the Autumn born pupil to be more likely and the Summer born to be less likely to be designated selective than those born in other quarters.

#### PART THREE

#### EXTERNAL EXAMINATIONS

- 1. General Certificate of Education the entry.
- 2. General Certificate of Education the entry relating to Selective and Non-Selective pupils.
- 3. Northern Universities Joint Matriculation Board and Associated Examination Board entries.
- 4. General Certificate of Education the entry in relation to the form system.
- 5. General Certificate of Education the results.
- 6. General Certificate of Education the results relating to Selective and Non-Selective pupils.
- 7. Northern Universities Joint Matriculation Board and Associated Examining Board results.
- 8. General Certificate of Education the results in relation to the form system.
- 9. Certificate of Secondary Education the entry.
- 10. Certificate of Secondary Education the results.

#### EXTERNAL EXAMINATIONS

#### GENERAL CERTIFICATE OF EDUCATION - THE ENTRY

During the whole of the period with which this investigation is concerned, pupils were entered for the 'O' level examinations of both the Northern Universities Joint Matriculation Board and the Associated Examining Board. That is not to say that double entries were made for particular pupils, but that some subjects were taken under the regulations of the Joint Matriculation Board and some under those of the Associated Examining Board. In certain instances this was because one Board offered an examination in a particular subject whereas the other did not. In other cases a particular Board offered an examination which in style or content was more appropriate to the syllabus as taught in school.

In the earlier years the entry covered a wider range of subjects than in the later period and the examinations of the Joint Matriculation Board were largely used. With the passage of time, a reduction in the number of examinable subjects took place and the examinations of the Joint Matriculation Board were used to a less extent than formerly. (31)

The Associated Examining Board, in the case of all entries with which this investigation is concerned, used a system of grades to indicate the quality of the pass achieved, whereas, up to and including 1962, the Joint Matriculation Board used a system of percentage assessments, but in 1963 a system of grades similar to that used by the Associated Examining Board was adopted. The basis of the analyses in this chapter is that of grades, and not percentages, implying that the Joint Matriculation Board results associated with the 1955-57 entries and originally given as percentages, have been converted to grades on the basis of the following system.

Grade	1	over 70%	Grade 6	45 - 49%
	_			
	2	65 <b>-</b> 69%	7	40 - 44%
	3	60 - 64%	8	35 <b>-</b> 39%
	4	55 <b>-</b> 59%	9	Under 35%
	5	50 - 54%		

<sup>31.</sup> See Appendix vi for details of subjects taken under the two Boards.

The total number of pupils entered annually for 'O' level examinations fluctuated over the 11-year period, varying between 79 pupils from the 1957 entry and 144 from the 1965 entry, as indicated in the following table.

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Entries	506	545	418	456	486	402	314	421	363	556	699	5166
Pupils	100	97	79	85	101	89	74	91	83	127	144	1070
Average	5.1	5.6	5.3	5.4	4.8	4.5	4.2	4.6	4.4	4.4	4.9	4.8

The average numbers of subject entries per pupil associated with the 1955-58 entries were larger than in subsequent years and reflect the fact that the 1958 entry was the first one for which an alternative to the General Certificate of Education examination was available in the school. This was the School Leaving Certificate of the Union of Educational Institutions which was later to assume responsibility for the administration of the Certificate of Secondary Education in the West Midlands Region. Only a relatively small proportion of pupils was entered for this examination in 1963 which explains why the average number of '0' level subject entries from the 1958 intake was still comparatively large relative to the numbers of pupils involved. (33)

Although the transition to non-streaming commenced with the 1962 entry, it was not until the 1964 and 1965 entries, the last completely unstreamed for the first two years, reached the fifth form stage, that highly significant increases in numbers of pupils entered for 'O' level became apparent. The system of parallel forms, within separate blocks, associated with the 1962 and 1963 entries, did produce a noticeable increase in the proportion of the original intake entered for 'O' level, but largely because the 1963 entry was such a small one, this is not readily deducable from the figures in the above table. (34)

<sup>32.</sup> The West Midlands Examination Board was set up on 8th July, 1963, to administer the Certificate of Secondary Education.

<sup>33.</sup> See Table 1 in Appendix i for a more detailed analysis of the entry.

<sup>34.</sup> See Table 2 in Appendix i from which it may be seen that 34.6% and 39.7% of the original intakes in 1962 and 1963 respectively were entered for at least one '0' level subject compared with only 28.9% in 1961.

It is interesting to note that in spite of the much larger numbers of subject entries per pupil associated with the intake for the four year period 1955-58, the transition to non-streaming, with its substantial rise in pupil entries, did not result in an appreciable drop in the average number of subject entries made on behalf of each pupil. (35)

In the period prior to unstreaming and particularly during the four years 1955-58, it was possible for some pupils to sit for relatively large numbers of 'O' level subjects by the end of the fifth year. (36) Since the 1959 entry no pupil has been permitted to sit for more than nine subjects and, in the case of the vast majority of pupils, the number has been restricted to eight.

In an attempt to discover whether any significant difference is to be observed in the overall style of the subject entry before and after the abandonment of streaming, a chi-squared test, applied to the following data, produced a value of 12.89 which is significant at the five per cent level of 12.592. This significant change in the pattern of the entry after 1961 is associated particularly with entries in four subjects, five subjects and seven or more subjects, a relatively greater contribution coming from entries in four and five subjects, and a smaller but increased contribution from seven or more subjects, than in the earlier period.

<sup>35. 4.8</sup> subjects per pupil between 1955-61 and 4.6 between 1962-65.

<sup>36.</sup> See Table 1 in Appendix i which indicates that some pupils in the 1956 entry, for instance, sat for as many as 12 subjects, although some of these were taken in the fourth year.

#### Observed Entries

No. of subjects	1	<u>ş</u>	3	4	5	6	7 or more	Total
1955 - 1961	90	72	62	56	61	68	216	625
1962 - 1965	68	44	49	55	60	51	118	445
Total	158	116	111	111	121	119	334	1070

#### Expected Entries

No. of subjects	1	2	3	4	5	6	7 or more	Total
1955 - 1961	92	68	65	65	71	69	195	625
1962 - 1965	66	48	46	46	50	50	139	445
Total	158	116	111	111	121	119	334	1070

An average number of lll pupils per year were entered for at least one subject at '0' level during the four year period after the abandonment of streaming compared with an average of only 89 pupils during the previous seven years when the school was streamed. This indicates that, whatever the pass achievements turned out to be, a larger number of pupils were afforded the opportunity of sitting for '0' level examinations as a consequence of abandoning the former system of rigid streaming.

At the same time, unstreaming was accompanied by a slight increase in the actual numbers of pupils not entered for any '0' level examination. In the period 1955-61, an average of less than 21 pupils per year were not entered compared with an average of over 23 in the period 1962-65, when an alternative examination was available for less-able pupils who previously would not have stayed on at school.

The greater opportunities afforded for entry to '0' level examinations, as a consequence of unstreaming, is seen much more clearly when the percentage of the original intake entered for one or more subjects is seen to rise from 28.9% in the 1961 intake to 53.9% in the 1965 intake. (37) This increase

is not confined to pupils entered for small numbers of subjects only, as might be thought to be the case, but applies to all categories from one to nine subjects inclusive, as appears in the following table which shows the percentages of the original intakes entered for various numbers of '0' level subjects before and after unstreaming.

	Percentages of	f original in	ntakes entered
	<u> 1955 - 61</u>	<u> 1962 - 65</u>	Difference
9 subjects or more	<b>3.7</b>	2.0	-1.7
8 subjects	3•3	4.5	1.2
7 subjects	<b>3.</b> 6	5•5	1.9
6 subjects	2.2	5•2	3.0
5 subjects	3.0	6.1	3.1
4 subjects	2.7	5.6	2.9
3 subjects	3.0	5.0	2.0
2 subjects	3.5	4.5	1.0
1 subject	4.4	6.9	2.5

The relatively large increase in the percentage of the intake entered for one subject only compared with two subjects should be noted, and is probably due to the influence of single subject entries made in respect of less-able pupils in practical subjects such as Art and Craft.

It is interesting to note that 18.9% of the original entry was, over the ll-year period, entered for five or more subjects at '0' level. If the entry had not been 'creamed' of high V.R.Q. pupils, this figure could be regarded as approximating to the percentage of pupils who might, under a tripartite system, have entered the grammar school and worked towards '0' level in five or more subjects. Adopting this criteria of assessment, then the school has, irrespective of the form of its organisation, at least ensured an entry of five or more subjects for a proportion of its pupils which is larger than that which might have been regarded as of grammar school calibre in many tripartite areas.

If, however, the question is asked, "Which form of school organisation is more conducive to a greater proportion of the original entry being entered for five or more subjects?" then the answer is clearly seen from the fact that in the period when the school was streamed, in spite of there being a larger number of pupils of very high V.R.Q., only 16.9% of the intake was entered for five subjects or more compared with 23.2% during the period after streaming was abandoned.

A similar increase in the percentages entered for various numbers of 'O' level subjects, after 1961, is to be seen when these relate only to the group of pupils who completed the fifth year. (38) In 1961, just before streaming was abandoned, only 77.1% of the fifth form was entered for 'O' level subjects compared with 83.7% in 1965, in spite of the large increase in numbers of pupils staying on, many of whom were of below-average ability. (39)

The following table enables a comparison to be made between the percentages of the fifth form entered for various numbers of subjects before and after unstreaming commenced.

		Percentages	of fifth	form entered
		1955 - 61	<u> 1962 - 65</u>	Difference
9	subjects or more	9.8	3.7	-6.1
8	subjects	8.7	8.2	-0.5
7	subjects	9.6	10.0	0.4
6	subjects	8.8	9•5	0.7
5	subjects	7•9	11.1	3.2
4	subjects	7.3	10.2	2.9
3	subjects	8.1	9.1	1.0
2	subjects	9.4	8.2	-1.2
1	subject	11.7	12.6	0.9

<sup>38.</sup> See Table 3 in Appendix i.

<sup>39.</sup> In 1961 only 96 pupils completed the fifth year compared with 172 in 1965.

By comparison with the figures relating to the whole of the intake, it is seen how there was a decrease, after unstreaming, in the percentage of the fifth form entered for two and eight subjects, although this is not significant and certainly in the case of eight subjects, results from a change of policy with regard to the entry rather than from unstreaming.

The largest increases in the proportions of the fifth form entered for specific numbers of subjects, after unstreaming, are associated with entries in four and five subjects. This should be compared with the percentage increases relating to the whole intake where the largest were to be found in association with four, five and six subjects.

## GENERAL CERTIFICATE OF EDUCATION - THE ENTRY RELATING TO SELECTIVE AND NON-SELECTIVE PUPILS

A comparison between the numbers of selective pupils who remained for five years and were entered for various numbers of '0' level subjects, (40) in the periods 1955-61 and 1962-65 indicates that unstreaming was not accompanied by a significant change in the pattern of the entry relating to this category of pupil. A chi-square of 0.90 resulted from the analysis, which is not significant.

A similar analysis carried out in respect of the group of non-selective pupils (41) who remained at school for five years, indicates a change in the pattern of the entry after 1961. A chi-square of 13.23 resulted from an analysis of the following data. This is significant at the one per cent level of 9.210 and indicates a significant tendency for more non-selective pupils, in the period 1962-65, to be entered for four or more subjects and for fewer of them to be entered for no subjects at all, than in the previous period.

<sup>40.</sup> See Table 4 in Appendix i.

<sup>41.</sup> See Table 5 in Appendix i.

#### Observed frequencies

	Number of entries									
Year	0	1, 2 or 3	4 or more	Totals						
1955-61	122	118	61	301						
1962-65	82	111	92	285						
Total	204	229	153	586						

#### Expected frequencies

Number of entries										
0	1, 2 or 3	4 or more	Totals							
105	118	78	301							
99	111	75	285							
204	229	153	586							

It is apparent that the abandonment of streaming opened up possibilities for non-selective pupils to be entered for larger numbers of subjects at '0' level.

If, instead of comparing numbers of pupils who, in the two periods were entered for 'O' level examinations, the numbers of subject entries made on behalf of the two categories of selective and non-selective pupils are examined, the following table results.

Numbers of '0' level subject entries

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
s	431	431	356	394	395	315	239	318	265	<b>3</b> 55	386	3885
N-S	75	114	62	62	91	87	<b>7</b> 5	103	98	201	313	1281
Total	506	545	418	456	486	402	314	421	363	556	699	5166

If, using these figures, a comparison is made between the entries in the periods before and after unstreaming, the highly significant chi-square value of 189.75 results from an analysis of the following data.

#### Observed frequencies

Year	Selective	Non- Selective	Total
1955-61	2561	566	3127
1962-65	1324	715	2039
Total	3885	1281	5166

Expected frequencies

Selective	Non- Selective	Total
2352	775	3127
1533	506	2039
3885	1281	5166

This result indicates that unstreaming was accompanied by a highly significant alteration in the contribution to the total subject entry of non-selective pupils.

If, finally, an analysis is undertaken to indicate the percentage of selective and non-selective pupils entering the school who were subsequently entered for at least one subject at '0' level, the following table results.

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
S	76.3	73.3	71.3	81.5	78.4	76.3	62.8	69.0	66.7	85.2	86.7	75.1
N-S	14.0	18.1	8.9	7.8	13.3	13.9	11.8	18.4	24.7	34.9	41.1	18.1

These figures show that, whilst an increase in the proportion of selective pupils entered for 'O' level examinations took place as a consequence of the complete non-streaming policy applied to the 1964 and 1965 intakes, the increase relating to the non-selective group commenced with the 1962 entry during the period of the creation of parallel forms within separate blocks. This suggests that this arrangement, by comparison with rigid streaming, enhances considerably the chances of non-selective pupils being entered for 'O' level examinations, but has little effect on the selective group of pupils.

A more precise comparison between the periods 1955-61 and 1962-65, shows an increase in the percentage of both selective and non-selective pupils entered for '0' level examinations in the later period. In the case of the non-selective group this is a highly significant increase as indicated in the following figures.

	<u> 1955 - 61</u>	<u> 1962 - 65</u>	<u>Differences</u>
Selective pupils	74.2%	76.8%	2.6%
Non-Selective pupils	12.4%	30.3%	17.9%

#### NORTHERN UNIVERSITIES JOINT MATRICULATION BOARD AND ASSOCIATED

#### EXAMINING BOARD - THE ENTRIES

Because pupils were entered over the whole of the 11-year period for the 'O' level examinations of both the Joint Matriculation Board and the Associated Examining Board, it is necessary to consider certain aspects of the entry and, later, the results associated with the two Boards. This is in order to assess any effects on the 'O' level entries and results in the periods before and after unstreaming which may arise solely from a change in the proportion of the total subject entry associated with each Board.

An examination of the data relating to the number of pupils who were entered for various numbers of '0' level subjects under the regulations of the two Boards (42) indicates that:

1. Over the 11-year period more pupils were entered for the examinations of the Joint Matriculation Board than for the Associated Examining Board, the imbalance arising as a consequence of the larger numbers of pupils entered for the Joint Matriculation Board examinations in the period prior to unstreaming.

Number of pupils entered for '0' level

	<u> 1955 - 61</u>	<u> 1962 - 65</u>	<u> 1955 - 65</u>		
J.M.B.	551	393	944		
A.E.B.	469	393	862		

- 2. No pupil has been entered for more than seven subjects in the Associated Board examinations, but as many as 64 pupils were entered for eight or more subjects, including 11 subjects, in the Joint Matriculation Board examinations in the period prior to unstreaming.
- Only in the case of pupils entered for one and two subjects has the number of pupils entered for Associated Examining Board examinations, over the 11-year period, exceeded those entered for Joint Matriculation Board examinations. This is seen to be, largely, the influence of the entries made in the period 1955-61, as the following figures, relating to the numbers of pupils entered for various numbers of subjects in the periods before and after unstreaming, show.

<sup>42.</sup> See Tables 6 and 7 in Appendix i.

#### Numbers of pupils entered for '0' level

	1955-61	entries	<u> 1962-65</u>	entries
	J.M.Bd.	A.E.Bd.	J.M.Bd.	A.E.Bd.
11 subjects	3			
10	2			
9	22			
8	<i>3</i> 7			
7	57		6	4
6	62		11	13
5	81		30	31
4	54	4	58	45
3	65	47	80	87
2	66	184	102	84
l subject	102	234	106	129
Total	<del></del> 551	469	393	393

- 4. In the period 1962-65, numbers of pupils entered for three, five and six subjects under the Associated Examining Board exceeded for the first time the number entered under the Joint Matriculation Board. This, combined with the fact that no pupils in the earlier period were entered for more than four subjects in the Associated Examining Board examinations, indicates a change in the style of the entry in the period after streaming was abandoned.
- 5. In the earlier period, the Associated Examining Board examinations were regarded as subsidiary to those of the Joint Matriculation Board but with the onset of unstreaming there was a tendency for the Associated Examining Board examinations to assume greater importance, leading gradually to a situation in which, by the time the 1965 entry sat for 'O' level examinations, pupils were being entered for a maximum of five subjects in the Joint Matriculation Board examinations and seven in the Associated Examining Board examinations. Nevertheless, with the exception of the 1958, 1964 and 1965 intakes, the number of pupils entered annually for Joint Matriculation examinations exceeded those entered for the Associated Examining Board examinations.

Although the onset of the policy of using the Associated Examining Board as the principal examining board coincided with the abandonment of streaming, that it was a gradual process is confirmed by reference to the following figures which show the average number of subject entries per pupil associated with each Board.

#### Average number of subject entries per pupil

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965 1	[otal
J.M.B.	4.4	4.7	4.1	4.6	4.4	4.3	3.5	3.7	2.9	2.2	2.2	3.6
A.E.B.	1.6	1.7	1.6	1.9	1.6	1.4	1.4	1.5	2.0	2.7	3.3	2.0
Total	5.1	5.6	5•3	5.4	4.8	4.5	4.2	4.6	4.4	4.4	4.9	4.8

It was not until the examination entry associated with the 1964 and 1965 intakes that the average number of subject entries per pupil under the Associated Examining Board exceeded that of the Joint Matriculation Board, although from 1963 a tendency for the Associated Examining Board to assume a greater role is to be seen. The following figures show that, considering the period after unstreaming as a whole, the average number of subject entries per pupil in the Associated Examining Board examinations was still slightly less than that of the Joint Matriculation Board.

	<u> 1955 - 61</u>	<u> 1962 - 65</u>	<u> 1955 - 65</u>
J.M.Bd.	4.3	2.6	<b>3.</b> 6
A.E.Bd.	1.6	2.5	2.0
Total	<u> </u>	4.6	4.8

A consideration of the data showing the number of subject entries made under each Board as a percentage of the total subject entry, confirms that it was not until the entries associated with the 1964 and 1965 intakes were made that the Associated Examining Board entry assumed predominance over that of the Joint Matriculation Board.

Number of subject entries as a percentage of the total subject entry

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
J.M.B.	75.1	77.2	76.1	69.5	73.9	80.6	79•3	72.9	60.8	44.1	38.2	66.0
A.E.B.	24.9	22.8	23.9	30.5	26.1	19.4	20.7	27.1	39.2	55.9	61.8	34.0

The Associated Examining Board entry, although greatly increased after 1961, still constituted less than half the total subject entry in the period 1962-65 after the abandonment of streaming.

	<u> 1955 <b>-</b> 61</u>	1962 <b>-</b> 65	<u> 1955 <b>-</b> 65</u>
J.M.Bd.	75•7	51.0	66.0
A.E.Bd.	24.3	49.0	34.0
Total	100.0	100.0	100.0

It may generally be said, therefore, that apart from the entries associated with the 1964 and 1965 intakes, the examinations of the Joint Matriculation Board have been utilised over the 11-year period to a greater extent than those of the Associated Examining Board.

## GENERAL CERTIFICATE OF EDUCATION - THE ENTRY IN RELATION TO THE FORM SYSTEM

During the period when the school was streamed, pupils were allocated to first year forms on the basis of their status as selective pupils or their Verbal Reasoning Quotient. (43) All selective pupils were placed in one of the top three forms on entry to the school. This created a situation in which the ability range of each form as indicated by the V.R.Q. was very limited. The range in a top first year form, for instance, might extend between V.R.Q. 133 and 124, a range of only nine points. Lower down the hierarchy, the range in another form might extend between 105 and 99, a range of six points and so on. (44) Restricting a form to such a narrow range of ability as indicated by the V.R.Q. was intended to ensure it was as

<sup>43.</sup> See <u>Background to the Study</u> - page 11 for a description of how this was carried out.

<sup>44.</sup> See Table 44 in Appendix i showing the V.R.Q. range of all first year forms.

homogeneous as possible so that the pupils in it could be taught together to a standard and at a rate appropriate to their ability.

As the transition to non-streaming took place, the difference between the highest and lowest V.R.Q. in most forms increased, resulting ultimately in all forms in the first three years having in them pupils whose V.R.Q.'s extended across almost the whole of the ability range. (45)

The following comparison between first year forms in the 1961 entry, immediately prior to unstreaming, and the 1965 entry, which was completely unstreamed, shows the maximum and minimum V.R.Q.'s in each form and indicates the radical change in form organisation that took place over the relatively short period of time between 1961 and 1965.

1961 entry	lA	18	10	10	1E	lF	lG	lH	18	lT
Maximum V.R.Q.	136	120	116	119	109	101	101	100	87	77
Minimum V.R.Q.	120	117	101	105	95	97	92	76	78	70
1965 entry	1T	1H	1E	ıw	10	10	ıL	1A	ın	18
Maximum V.R.Q.	132	123	135	121	125	121	122	125	122	123
Minimum V.R.Q.	70	75	70	79	<b>7</b> 5	81	75	72	70	76

A comparison between the average V.R.Q. of pupils in the first year forms in the years 1961 and 1965 emphasises the new situation created as a consequence of unstreaming, when members of staff who for many years had become accustomed to dealing with forms containing pupils falling within a restricted V.R.Q. range were now faced with forms containing pupils whose intellectual ability ranged between V.R.Q. 130 plus and 70.

<sup>45.</sup> See Tables 44 - 46 in Appendix i for precise figures relating to the V.R.Q. ranges in all forms in the first three years.

1961 entry	1A	1B	1C	1D	1E	1F	lG	1H	18	lT
Average V.R.Q.	124	118	113	112	104	99	95	90	84	73
1965 entry	1T	1H	1E	ıW	10	1D	1L	1A	ln	18
Average V.R.Q.	103	100	104	104	102	103	103	104	103	103

Although the process of unstreaming was not primarily concerned with improving the performance of pupils in external examinations when they reached the fifth form, it is important to consider what effect placing the pupils in unstreamed forms had, subsequently, on the pattern of the 'O' level examination entries and achievements five years later.

The following comparison is made between the 1961 entry, which was the last one to enter the school before streaming was abandoned, and the 1965 entry which was completely unstreamed and remained so for two years. It shows the numbers of pupils who entered streamed and unstreamed forms in 1961 and 1965 respectively, and who subsequently were entered for at least one subject at 'O' level. (46)

1961 entry	lA	1B	10	1D	1E	1F	1G	1H	ıs	1T	Total
entered for 'O' level	23	16	15	13	2	1	3	1	0	0	74
1965 entry	1T	1H	1E	1W	10	1D	1L	1A	1N	18	Total
entered for '0' level	17	15	13	13	13	13	15	18	12	15	144

When these numbers are considered as percentages of the total numbers of pupils originally in each form, the effects of complete unstreaming on the 1965 intake by comparison with the streamed intake are clearly seen.

<sup>46.</sup> See Table 8 in Appendix i for a complete analysis of all first year forms across the period 1955-65.

1961 entry	lA	18	10	10	1E	1F	1G	111	18	1T	Total
% of form entered	82	53	52	46	7	3	11	4	0	0	29%
1965 entry	1T	1H	1E	1W	10	10	1L	1A	ln	18	Total
% of form entered	61	58	57	52	48	46	60	58	44	56	54%

It can be seen that more than half the total number of pupils who entered the school in 1965 eventually sat for '0' level examinations compared with only 29% of the 1961 intake. (47) Furthermore, apart from the top first year form in the 1961 intake, in only two other forms, in that year, did more than fifty per cent of the pupils eventually sit for '0' level examinations, compared with seven forms in the 1965 intake, in which more than half of the pupils eventually sat for '0' level examinations.

The effect of unstreaming on the pattern of the entry for '0' level was so dramatic that from the 1964 and 1965 entries, the latter which was completely unstreamed and the former almost so, more than half the pupils in 15 first year forms out of 20 eventually sat for at least one '0' level subject compared with the three or four forms in which this occurred, each year, between 1955 and 1961 when the school was streamed. Furthermore, during the period of streaming, pupils sitting '0' level examinations came from a restricted number of first year forms compared with the case after complete unstreaming took place. (48)

Even before the transition to complete non-streaming had taken place, the tendency could be seen in the 1963 and 1964 entries for increased numbers of 'O' level candidates to come from a greater spread of first year forms. It was not, however, until the first year entry was completely unstreamed that the full impact on the subsequent 'O' level entries became

<sup>47.</sup> See Table 9 in Appendix i for a complete analysis of all first year forms across the period 1955-65 from which it may be seen that previous streamed intakes achieved entries of the same order as the 1961 intake, ranging between 26% of the intake to 35%.

<sup>48.</sup> See Table 8 in Appendix i.

apparent. This is seen in the following figures which show the percentage of each first year intake which was eventually entered for '0' level examinations. (49)

Also to be considered is the number of subject entries subsequently made on behalf of pupils in first year forms. (50) The emergence of the Certificate of Secondary Education examination proper (51) as an alternative to the General Certificate of Education for pupils of lower ability, led to a reduction in the number of '0' level subject entries from 1960 onwards, until the transition to complete non-streaming had the effect of raising the subject entry to a level it had never previously reached.

# Numbers of '0' level subject entries subsequently made in respect of the various annual intakes

1963 1964 1965 Total 1956 1958 1959 1960 1961 1962 1955 1957 486 402 314 421 363 556 699 5166 506 545 418 456 No.

A further comparison between the intakes for 1961 and 1965 in respect of numbers of subject entries, reveals how unstreaming in the first two years, led to greater opportunities being available to pupils who, in the earlier period, were denied them, largely because it was assumed that many

<sup>49.</sup> The rise in the percentage increase of each annual intake entered for 'O' level is all the more remarkable when it is considered that prior to the 1958 entry, no alternative examination was available in the school. This is reflected in the relatively higher percentages associated with the 1955 and 1956 entries when all pupils staying for five years took 'O' level examinations or none at all. On the other hand, the emergence of an alternative examination would, no doubt, have the effect of causing more pupils to stay on at school longer, some of whom might subsequently be considered suitable for 'O' level entry. This did not occur between 1958 and 1961.

<sup>50.</sup> See Table 10 in Appendix i.

<sup>51.</sup> As opposed to the Union of Educational Institutions examinations which were available for the 1958 and 1959 entries.

of the first year forms contained pupils, none of whom would be capable of dealing with '0' level studies.

Numbers of '0' level subject entries subsequently made in respect of pupils in first year forms

1961	1A	<b>1</b> B	10	lD	1E	1F	1G	111	18	1T	Total
No.	105	84	52	59	9	1	3	1	0	0	314
1965	1T	1H	1E	lW	10	<b>1</b> D	1L	1A	1N	18	Total
No.	81	72	69	61	48	77	75	92	59	65	699

The effects, so far deduced, of unstreaming on the '0' level examination entries are also reflected in the figures showing the average numbers of '0' level subject entries per pupil in each of the first year forms. (52) Prior to the 1964 entry, it was rarely the case that in more than three first year forms out of each annual intake were pupils to be found who would subsequently be entered for an average of more than four subjects. In 1964 and 1965, in 16 forms out of 20, this average was exceeded, compared with the 1960 and 1961 entries, in which only seven first year forms out of 22 contained pupils who together were eventually entered for more than four subjects each.

whatever other consequences ensued as a result of entering larger numbers of pupils who were originally placed in unstreamed forms, for 'O' level examinations, it is certainly the case that the abandonment of streaming removed from the minds of staff and pupils any idea that there are certain first, second or third year forms in the school which are not intended to include pupils capable of taking 'O' level examinations.

Whether the results achieved at 'O' level justify this change of policy or not, the effect on the morale of both staff and pupils cannot be overlooked.

<sup>52.</sup> That is to say, the total number of subject entries made on behalf of pupils in a particular first year form when they reached the fifth form, divided by the total number of pupils in that form who eventually sat for '0' level.

See Table 11 in Appendix i for an analysis covering all first year forms.

#### GENERAL CERTIFICATE OF EDUCATION - THE RESULTS

A consideration of the achievements in 'O' level examinations over the ll-year period, indicates that a total of 877 pupils, representing 29% of the total number entering the school over that period, were successful in passing one or more subjects at 'O' level. (53) A comparison between the periods before and after the abandonment of streaming shows how unstreaming led to a greater proportion of the annual intake being successful at 'O' level.

	<u> 1955–61</u>	<u> 1962-65</u>
Numbers gaining 1 pass or more	490	387
% of original intake gaining l pass or more	24.0	39.2

An analysis applied to the results in the periods 1955-61 and 1962-65 and including all pupils who remained at school for five years, whether they were entered for '0' level examinations or not, produced a chi-square of 9.05 which is significant at the 5% level and almost so at the 1% level of 9.21.

### Observed Numbers

#### Expected Numbers

	Numbers of passes					
Years	0	1, 2 or 3	4 or more	Total		
1955-61	279	287	203	769		
1962-65	152	222	165	539		
Total	431	509	368	1308		

Numbers of passes							
0	1, 2 or 3	4 or more	Total				
254	299	216	769				
177	210	152	539				
431	509	368	1308				

This result indicated a significant alteration in the pattern of the results after 1961, the elements largely contributing to this, being the diminished tendency for pupils who stayed for five years, in the period

1962-65, to gain no passes at all and the increased tendency for pupils to be more successful in gaining four passes or more compared with those in the earlier period. (54)

The tendency for pupils to be more successful in gaining one, two and three passes in the period after unstreaming, whilst not so great, is also apparent - 41.2% of the fifth form gaining this number compared with 37.5% in the earlier period.

When the analysis was repeated using only the results of pupils who were entered for '0' level, as set out in the following table, a chi-square of 11.99 resulted which is significant at the one per cent level and more so than the result associated with the last analysis. This indicated, more than anything else, a tendency for pupils entered for '0' level examinations in the period 1962-65, to avoid being entirely unsuccessful compared with those in the period 1955-61.

Observed frequencies

	Numbers of passes						
Years	0	1, 2 or 3	4 or more	Total			
<b>1</b> 955-61	135	287	203	625			
1962-65	58	222	165	445			
Total	193	509	368	1070			

Expected frequencies

Numbers of passes							
0	1, 2 or 3	4 or more	Total				
113	297	215	625				
80	212	153	445				
193	509	368	1070				

A more detailed analysis carried out on the basis of the numbers of pupils entered for '0' level examinations who gained passes in 0, 1, 2, 3, 4, 5, 6, 7 and 8 or more passes, (55) produced a chi-square of 14.75 which is almost significant at the five per cent level and confirmed the previous findings. The most substantial element in the array was that relating to

<sup>54.</sup> In fact, 50.6% of the fifth form gained four or more passes in the period 1962-65 compared with only 26.5% in the period 1955-61. Also 36.2% failed to gain any passes in the earlier period compared with only 28.2% in the later period.

<sup>55.</sup> Sometimes the manner in which the categories are arranged can affect the degree of significance of the chi-square value obtained. In this case the level of significance was not quite so high as when the same data was analysed using categories of 0, 1-3, and 4 subjects or more.

numbers of pupils gaining no passes which indicated that in the period 1962-65 pupils failed much less frequently than in the earlier period to gain one or more passes.

Further analyses relating to the separate achievements of Selective and Non-Selective pupils produced chi-squares of 14.65 and 10.62 respectively, indicating that both groups fared better in the period after unstreaming than they did before. The greatest benefit to both groups was found to be in the tendency to avoid failing completely after 1961, as was found for the whole group of pupils entered for 'O' level in the previous analyses. The selective pupils were also found to stand a better chance of gaining four or more passes in the period after unstreaming commenced. (56)

The results of the analysis suggested that unstreaming was slightly more beneficial to selective pupils than to non-selective pupils, although it should be borne in mind that there are other criteria than numbers of passes obtained to be taken into account in assessing pupils' performance in examinations. (57)

A final analysis relating to all pupils in the original intake, whether they entered the fifth form or not, produced the incredibly significant chi-square of 74.66. This result indicated that the abandonment of streaming was accompanied by a highly significant tendency for pupils to fare better in respect of '0' level achievements, whatever categories of passes are considered. That is to say, since 1961, a pupil, on entry to the school, has stood a better chance of gaining passes at '0' level and a reduced chance of gaining no passes five years later than did a pupil who entered the school during the period 1955-61.

<sup>56.</sup> See section vi in this chapter for more detailed analyses and results.

<sup>57.</sup> For example, the quality of the pass achieved.

### Observed frequencies

Expected frequencies

	Numbers of passes					
Years	0	1, 2 or 3	4 or more	Total		
1955-61	1554	287	203	2044		
1962-65	599	222	165	986		
Total	2153	509	368	3030		

Numbers of passes							
0	1, 2 or 3	4 or more	Total				
1453	343	248	2044				
700	166	120	986				
2153	509	368	3030				

The increase in numbers of pupils being successful at '0' level subsequent to the abandonment of streaming is seen most readily when the numbers of pupils in the last streamed intake (1961) who gained one pass or more are compared with the numbers in the first completely unstreamed intake (1965). In the first period there were 60 pupils and in the second period there were 126, an increase of more than 100%. That this increase was not confined to any particular category of subject passes is seen in the following table where the total numbers of pupils gaining various numbers of passes are shown, together with the average annual numbers of pupils gaining these passes before and after unstreaming.

	Total number	er of pupils	Average ann of pu	
	<u> 1955 - 61</u>	<u> 1962 - 65</u>	<u> 1955 - 61</u>	1962 - 65
8 subjects or more	20	16	3	4
7 subjects	22	25	3	6
6 subjects	36	32	5	8
5 subjects	56	43	8	11
4 subjects	69	49	10	12
3 subjects	85	55	12	14
2 subjects	78	70	11	18
1 subject	124	97	18	24

A comparison between the numbers of pupils gaining one pass or more and the number of pupils entered (58) indicates that of the 1070 pupils who, over the 11-year period were entered, a total of 193 failed to gain any passes at all. This figure represents an average of 19 pupils per year during the period 1955-61 compared with only 14 per year during the period 1962-65. This improvement is all the more remarkable when it is considered that the vast majority of pupils who fail to gain any passes at '0' level are to be found in the group who are entered for 1, 2 and 3 subjects and that the numbers of pupils entered for these numbers of subjects rose appreciably after unstreaming. (59)

	Average annual numbers of pupils entered				
	<u> 1955 - 61</u>	<u> 1962 - 65</u>			
3 subjects	9	12			
2 subjects	10	11			
l subject	13	17			

Furthermore, the numbers of pupils entered for 1, 2 and 3 subjects who were successful in passing all the subjects for which they were entered, increased appreciably after 1961, as the following table shows. This gave rise to a situation in which unstreaming was accompanied by a decrease in the number of pupils failing to gain any passes at '0' level.

Percentage of pupils entered for 1, 2 and 3 subjects who were successful in passing all subjects for which they were entered

	<u> 1955 - 61</u>	<u> 1962 - 65</u>
3 subjects	6.5	16.3
2 subjects	15.3	15.9
1 subject	31.1	44.1

<sup>58.</sup> See Table 1 in Appendix i.

<sup>59.</sup> More pupils entered for one subject only in the four years after 1961 than in the whole of the seven year period prior to this.

The substantial decrease in the numbers failing to gain any passes in the period after 1961 was not entirely a consequence of the existence of an alternative examination for which weaker pupils could be entered and must be regarded as a positive effect of unstreaming (60) which is reflected in the following figures.

	1955-61	1962-65
% of fifth form entered for 'O' level subjects	81.3%	82.6%
% of fifth form entered who failed to gain any passes	17.6%	10.8%
% of fifth form who failed to gain any passes	36.2%	28.2%
% of fifth form entered for 1, 2 and 3 subjects who passed in every subject	19.2%	28.0%

The conclusions so far deduced have largely been based on considerations arising from actual numbers of pupils gaining passes at '0' level before and after unstreaming commenced. If, however, these numbers are considered as percentages of the total number of pupils in each annual intake, the effects of unstreaming become even more apparent.

The first thing to be noticed is the sharp drop in the proportion of the total intake which, after 1961, failed to gain any passes and is best seen by reference to the following figures which represent the percentages of the intake which, in each of the years 1955-65 gained one or more passes at '0' level.

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
%	26.1	31.0	22.7	19.9	22.5	23.1	23.4	31.2	34.0	43.7	47.2	28.9

A comparison between the figures relating to the last intake to be streamed (1961) and the first to be unstreamed for two years (1965) shows

<sup>60.</sup> Although, after unstreaming, larger numbers of non-selective pupils were entered for '0' level in 1, 2 and 3 subjects than was the case before 1961, they achieved better results than did many of the selective pupils who, in the earlier period, were entered for 1,2 and 3 subjects.

how, over the four year period, the percentage of the intake passing in one or more subjects more than doubled - 23.4% to 47.2%.

The following more detailed analysis shows the percentages of the intake passing various numbers of subjects over the two periods and is much more revealing. It shows that, in every category except that relating to the numbers staying for five years who gained no passes, an increase occurred after streaming was abandoned. The exception is to be explained by the increased numbers of less-able pupils who entered the fifth form after 1961 and who were entered for the C.S.E. examination only.

	Percentages of	of original	intake passing
	<u> 1955 - 61</u>	<u> 1962 <b>-</b> 65</u>	Difference
8 subjects or more	1.0	1.6	0.6
7 only	1.1	2.5	1.4
6 only	1.8	3.2	1.4
5 only	2.7	4.4	1.7
4 only	3.4	5.0	1.6
3 only	4.2	5.6	1.4
2 only	3.8	7.1	3.3
l only	6.1	9.8	<b>3.</b> 7
O (all staying)	13.6	15.4	- 1.8
O (entered only)	6.6	5•9	0.7
O (total intake)	76.0	60.8	15.2

A comparison between columns one and two indicates that the largest increases, after unstreaming, are associated with pupils passing in one and two subjects, (61) whilst the largest increase in a particular percentage is in the case of those pupils passing in seven subjects, the proportion of which more than doubled in the period 1962-65.

See Table 13 in Appendix i for detailed figures relating to each of the annual intakes over the 11-year period.

These increases were occasioned by the larger numbers who, after 1961, entered the fifth form but who were not regarded as being '0' level candidates in academic subjects.

added together vertically, the percentage of the intake passing in x or more subjects can readily be deduced. Doing this with the top five percentages in each column shows that in the period 1955-61, only 10% of the annual intake obtained passes in four or more subjects, compared with 16.7% of all pupils entering the school in the period 1962-65. Corresponding figures for five or more subjects during the two periods are 6.6% and 11.7%, showing that any improvement in performance at '0' level consequent upon the introduction of non-streaming was not confined to relatively small numbers of passes obtained by non-selective pupils who previously did not enter the fifth form. As already indicated, the more able pupils, including those designated selective, benefited at least as much, by unstreaming, if not more, than any other group. (62)

Because the figures shown in the last table relate to the whole of the periods before and after unstreaming commenced, they disguise the fact that, though there was not much variation between the percentages for individual years in the period before 1962, the average percentages relating to the period 1962-65 as a whole are less than those relating to the intakes which were completely unstreamed, and which are more representative of the kind of results to be expected with future unstreamed intakes. This is seen very clearly when the figures for the 1961 intake are compared with those for the 1965 intake which was the first one to be completely unstreamed for two years.

<sup>62.</sup> See Section vi in the Chapter relating to the performance of Selective and Non-Selective pupils for further details.

	Percentages	of original int	takes passing
	1961 intake	1965 intake	Differences
8 subjects or more		<b>3.7</b>	3•7
7 subjects or more	1.2	7.1	5•9
6 subjects or more	1.6	9.4	7.8
5 subjects or more	<b>3.</b> 5	14.6	11.1
4 subjects or more	7.4	20.6	13.2
3 subjects or more	12.1	25.8	13.7
2 subjects or more	16.8	<b>35.</b> 6	18.8
1 subject or more	23.4	47.2	23.8

These figures indicate a trebling almost and a four-fold increase in the intake gaining passes in four or more and five or more subjects, respectively, consequent upon the 1965 intake being completely unstreamed and confirm the fact that the more able pupils benefited as much, if not more from unstreaming, than did those of average ability.

Having shown how an increase took place in the proportion of the total annual intake entered for and passing 'O' level subjects, after streaming was abandoned, the question arises as to what the corresponding effect is seen to be on the statistics relating to the fifth form group as a whole.

Did, for instance, unstreaming result in a less significant increase in the proportions of the fifth form gaining various numbers of subject passes, as was suggested might be the case in the earlier part of this section when a chi-squared analysis produced a value which, although significant, was much less so than the value obtained from the analysis relating to the whole of the annual intake. (63) The following table which shows the percentage of the fifth form who were successful in passing various numbers of subjects in the two periods in question, (64) does not in its main essentials differ from that relating to the whole intake.

<sup>63.</sup> The chi-squares were 9.05 and 74.66 respectively.

<sup>64.</sup> See Table 14 in Appendix i for detailed percentages relating to every year in the period 1955-65.

Percentages of fifth form passing in various numbers of subjects

	1955 - 61	<u> 1962 - 65</u>	Differences
8 subjects or more	2.6	3.0	0.4
7 subjects only	2.9	4.6	1.7
6 subjects only	4.7	5•9	1.2
5 subjects only	7•3	8.0	0.7
4 subjects only	9.0	9.1	0.1
3 subjects only	11.1	10.2	- 0.9
2 subjects only	10.1	13.0	2.9
1 subject only	16.1	18.0	1.9

It is to be seen that the largest increases are associated with pupils passing in one and two subjects and the largest increase in the value of a particular percentage is that associated with pupils passing in seven subjects. Only in the case of pupils gaining three passes was there, after unstreaming, a reduction in the percentage of the fifth form who were successful. (65)

The indications are that unstreaming was accompanied by an increased chance that pupils remaining for five years would gain what is commonly called 'a good G.C.E.' in five or more subjects and an increased chance that they would gain passes in one and two subjects compared with the earlier period. The same expectation does not extend to pupils passing in three and four subjects and this is probably because those pupils who passed in one and two subjects had, generally speaking, been entered for one, two and three subjects, whereas those who, in the period when the school was streamed, gained three and four subjects had been entered for many more than this and had under-achieved by comparison with those entered for similar numbers of subjects after unstreaming. In other words, more pupils were

<sup>65.</sup> This reduction is also seen to apply to the pupils who passed in three and four subjects considered as a single group. It is also noted when reference is made to the figures relating to the individual intakes for 1961 and 1965 - See Table 14 in Appendix i.

gaining passes in three and four subjects and fewer were gaining passes in five, six, seven and eight subjects in the earlier period than should have done so if under-achievement had not been taking place. This is confirmed by reference to the percentage figures in the earlier part of this section where it is seen that the proportions of the total intake gaining three passes and four passes are higher than they should be if the figures for the whole of the period 1955-61 are to appear in descending order of magnitude, as they would normally be expected to do and, in fact, do for the period 1962-65.

A similar discrepancy is to be noted in the last table relating to the percentages of the fifth form passing in various numbers of subjects in the 1955-61 intakes where it can be seen that the percentages passing in three and four subjects are higher than they should be if the percentages in the first column are to occur in descending order of magnitude, as they do in the second column, relating to the period after unstreaming.

It is not, therefore, that pupils after unstreaming were under-achieving in respect of gaining passes in three and four subjects, so much as that those in the earlier period were under-achieving in gaining five, six, seven and eight subjects. That is to say, the more able were not achieving their potential under a system of streaming. This under-achievement of the more able pupils in five or more subjects and over-achievement in three and four subjects, in the earlier period, is seen very clearly when the figures relating to the 1961 and the 1965 intakes are compared.

<sup>66.</sup> See the results of the chi-squared analysis on the first page of this Section where it was shown that a significant change occurred after unstreaming in the numbers of the fifth form failing to gain any passes.

# Percentages of the fifth form gaining various numbers of passes

	1961 intake	1965 intake	Differences
5 passes or more	9.4	22.7	13.3
4 passes only	10.4	9•3	- 1.1
3 passes only	12.5	8.1	- 4.4
2 passes only	12.5	15.1	2.6
l pass only	17.7	18.0	0.3

Not to be overlooked is the percentage of the fifth form which, after the abandonment of streaming, failed to gain any passes at 'O' level. Following a substantial increase in the numbers entering the fifth form after 1961, it might reasonably be expected that a larger proportion of the fifth form would fail to secure passes at 'O' level. In fact, the opposite was the case. Whereas 37.5% of the fifth form from the 1961 intake failed to gain any passes at 'O' level, only 26.7% from the 1965 intake failed to gain passes. The significance of this is more clearly seen when the figures relating to the whole of the periods before and after unstreaming are considered.

	<u> 1955 - 61</u>	<u> 1962 - 65</u>
% of the fifth form who gained no passes	36.3	28.2
% of the fifth form who were entered and gained no passes.	17.6	10.8

These figures indicate quite clearly that a pupil who entered the fifth form after the onset of non-streaming had a greatly reduced chance of leaving the school with no 'O' level passes to his credit.

Whilst the number of passes gained at 'O' level is a useful indicator of the achievements of a particular group of pupils, it is also necessary to examine the quality of the passes obtained by considering the grades

associated with the subject entries. (67) The following table shows the average grade awarded at '0' level per subject entry over the 11-year period and includes all subjects for which pupils were entered, whether passed or not.

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Grades	3151	3133	2380	2999	3214	2414	1860	2365	1828	3034	3813	30,191
Sub- jects	506	545	418	456	486	402	314	421	363	556	699	5,166
Average	e 6.2	5.7	5.7	6.6	6.6	6.0	5•9	5.6	5.0	5•5	5•5	5.8

A simple examination of these figures indicates that unstreaming was accompanied by an improvement in the quality of the passes achieved. This is seen in the fact that in the period after 1961 the average grade obtained per subject entry was 0.7 points lower than in the earlier period. (68)

The fact that an improvement in the quality of the average grade was achieved at the same time as the total number of pupils being examined was increasing (from 89 per year in the period 1955-61 to 111 per year in the period 1962-65) appears all the more remarkable, (69) although the possible effects of using the examinations of the Associated Examining Board to a greater extent in connection with the 1964 and 1965 intakes must also be examined. (70)

Another indication of the improvement in results at '0' level after 1961 is to be seen in the fact that, although the average number of subject entries per pupil fell in the period after unstreaming, (71) from 5.0 to 4.6, the average number of subject passes per pupil entered rose from 2.6 to 2.9,

<sup>67.</sup> In assessing the results in this section, it should be borne in mind that Grades 1, 2, 3, 4, 5 and 6 are defined to be passes and Grades 7, 8 and 9 failures.

<sup>68.</sup> The average grade per subject in the period 1955-61 was 6.1 compared with 5.4 in the period 1962-65.

<sup>69.</sup> The number of subject entries per pupil fell only slightly during the same period from 4.8 to 4.6.

<sup>70.</sup> See Section vii in this Chapter where this is considered.

<sup>71.</sup> See Section i in the present Chapter.

implying a higher pass rate in relation to entries made than in the earlier period. If the figures in the following table are compared with those showing the annual average entries per pupil, (72) much less discrepancy is seen in the period between 1962 and 1965 than between those for the years 1955-59, there being less discrepancy between the figures for the 1960 and 1961 intakes than for the earlier years because the Certificate of Secondary Education examinations were by then being used to good purpose.

	Averag	e numb	er of	subjec	t pass	ses at	'0' le	vel pe	r pupi	1 ente	ered	
Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Passes	271	329	244	198	208	220	169	254	263	353	442	2951
Pupils	100	97	79	85	101	89	74	91	83	127	144	1070
Averag	e 2.7	3.4	3.1	2.3	2.1	2.5	2.3	2.8	3.2	2.8	3.1	2.8

One of the most revealing indicators of 'O' level performances is that showing the number of subject passes gained as a percentage of the number of subject entries made. These are shown in the following table, from which it may be seen that after 1961, when streaming was abandoned, the annual percentage pass rates are all over 60%, whereas this figure had only been attained on one previous occasion during the preceding seven years.

Number of subject passes as a percentage of number of subject entries 1959 1960 1961 1962 1963 1964 1965 Total Year 1955 1956 1957 1958 699 5166 418 456 486 402 314 421 363 556 Entries 506 545 244 198 208 220 169 254 263 353 442 2951 Passes 271 329 60.4 58.4 43.4 42.8 54.7 53.8 60.3 72.5 63.5 63.2 57.1 % 53.6

The overall improvement in results using this statistic as an indicator is reflected in the fact that, during the period 1955-61, the number of subject passes expressed as a percentage of entries was 52.4%, rising to 64.3% for the period 1962-65. (73)

Another reliable indicator of the performance of a group of pupils in examinations is the number who achieve a pass in every subject for which they are entered. The total number of pupils in each intake who were successful in doing this is shown below. (74)

It can be seen that out of a total of 142 pupils who, throughout the ll-year period, passed in every subject for which they had been entered, 63 came from the seven annual intakes 1955-61 and 79 from the four annual intakes 1962-65, representing an annual average number of 9 pupils per year in the period when the school was streamed and 20 per year when it was unstreamed.

It is important to note that the substantial improvement in the performance of individual pupils was not a consequence of more pupils in the period 1962-65 passing in the one and two subjects for which they had been entered, as is seen when these pupils are omitted from the analysis. Considering only those who were entered for and successfully passed 3, 4, 5, 6, 7, 8, 9 and 10 subjects, then an average of just over three pupils per year and just under ten pupils per year were successful in the period prior to and after the abandonment of streaming, respectively. These figures represent an even more substantial improvement in the performance of individual pupils during the period 1962-65 than do the figures relating to those who

<sup>73.</sup> This must also be seen in relation to the fact that the Associated Examining Board examinations were being used to a larger extent in the period 1962-65.

<sup>74.</sup> See Table 15 in Appendix i for a more detailed analysis.

passed in one and two subjects only. (75) It may, therefore, be confidently said that the improvement was most noticeable in the case of pupils entered for and passing larger numbers of subjects (76) thus confirming the greater benefit accruing to the more able pupils as a consequence of unstreaming.

A goodness-of-fit test applied to the following data confirmed the tendency for more pupils to pass in all subjects for which they had been entered after unstreaming to an extent which was statistically significant. The chi-square value of 13.38 was significant well beyond the one per cent level.

Numbers who did/did not achieve a pass in every subject

Observed frequencies

Years	Did	Did not	Total
1955-61	63	562	625
1962-65	79	366	445
Total	142	928	1070

Expected frequencies

Did	Did not	Total
83	542	625
59	386	445
142	928	1070

It is interesting to note the difference between the percentages of pupils entered for particular numbers of subjects who passed in all of them. These appear in the following table.

<sup>75.</sup> If the number of pupils who were successful in passing all the subjects for which they were entered is expressed as a percentage of the total number of pupils entered for 'O' level examinations, it is seen that 17.8% of the total entry were successful in the period 1962-65 compared with only 10.1% in the seven year period 1955-61.

<sup>76.</sup> For example, 24 pupils who were entered for seven subjects or more in the period 1962-65 passed in every subject compared with only nine who did so in the period 1955-61, in spite of the first period being only of four years duration compared with seven years in the second period.

Numbers of pupils who achieved a pass in every subject for which they were entered expressed as a percentage of the number of pupils entered for that number of subjects

	<u> 1955 - 61</u>	<u> 1962 - 65</u>	<u> 1955 - 65</u>
9 subjects or more	5•3	20.0	19.0
8 subjects only	3.0	22.7	10.8
7 subjects only	4.1	18.5	10.2
6 subjects only	2.9	2.0	2.5
5 subjects only	4.9	10.0	7.4
4 subjects only	10.7	5•5	8.1
3 subjects only	6.5	16.3	10.8
2 subjects only	15.3	15.9	15.5
1 subject only	31.1	44.1	36.7
Average	10.1	17.8	13.2

These figures show that, after streaming was abandoned, the probablity of pupils successfully passing all subjects for which they were entered increased in all categories except those associated with four subjects and six subjects. In spite of the larger numbers of pupils of high V.R.Q. who entered the school in the period before 1961 and the policy of permitting pupils in the 1955-58 intakes to enter for large numbers of subjects, (77) the most notable increase in performance after 1961 was in the case of pupils entered for and gaining passes in seven, eight and nine subjects or more. These increased approximately six-fold in the period after unstreaming commenced, thus confirming the earlier conclusions that the effects of unstreaming were at least as favourable, if not more so, to the more able pupils than to any other group. (78)

The figures in the right-hand column relating to the whole of the ll-year period, suggest that, for some reason, pupils entered for four,

<sup>77.</sup> See Table 1 in Appendix i which indicates that in 1956, for instance, some pupils entered for as many as 12 subjects.

<sup>78.</sup> See page 67.

five and six subjects found it more difficult to achieve passes in all subjects than did those entered for other numbers of subjects. This could be explained if the percentages of the fifth form entered for four, five and six subjects were lower than the percentages entered for other numbers of subjects. This, however, is not indicated (79) and the cause must be looked for elsewhere. The answer may well be that the most able pupils stand the best chance of passing all subjects for which they are entered and that, generally speaking, this type of pupil will be entered for at least seven subjects. The pupils entered for four, five and six subjects will more likely be those who are not in the top flight academically and are, therefore, more likely to fail to achieve passes in all subjects for which they are entered, leading to a situation where fewer of them, streamed or unstreamed, pass in every subject.

It is interesting to note that a pupil entered for three subjects was just as likely to pass in three subjects, considering the figures for the whole of the 11-year period, as a pupil entered for seven and eight subjects was likely to pass in seven and eight subjects. In the period prior to 1962, however, a pupil entered for three subjects was more likely to pass in three subjects than was a pupil entered for five, six, seven, eight, nine or more subjects likely to pass in all subjects. After unstreaming commenced, a pupil entered for three subjects had a greater chance of passing all three subjects than did a pupil entered for four, five and six subjects of passing in all subjects.

<sup>79.</sup> See Section i in this Section and Table 3 in Appendix i.

## GENERAL CERTIFICATE OF EDUCATION - THE RESULTS RELATING

#### TO SELECTIVE AND NON-SELECTIVE PUPILS

Although there was no significant change in the pattern of the 'O' level entry relating to selective pupils, consequent upon unstreaming, (80) there was a significant alteration in the degree of success which selective pupils enjoyed, after 1961, compared with the earlier period. (81) Using the following data as a basis of comparison, a chi-square of 11.96 resulted which is significant at the one per cent level of 9.21 and more significant than the corresponding value found for the whole of the fifth form in the last section.

Observed frequencies

	Numbers of passes							
Years	0	1, 2 or 3	4 or more	Totals				
1955-61	94	197	177	468				
1962-65	29	101	124	254				
Totals	123	298	301	722				

Expected frequencies

	Numbers	of pass	es
0	1, 2 or 3	4 or more	Totals
80	193	195	468
43	105	106	25 <del>4</del>
123	298	301	722

This result indicates a significant tendency for selective pupils who remained at school for five years to achieve greater success in passing four or more subjects in the period 1962-65 than in the earlier period. Also indicated is an increased tendency for selective pupils who entered the fifth form to avoid leaving school without having obtained any passes at '0' level, after streaming was abandoned. This is not very surprising because, in the period 1955-61 inclusive, some selective pupils who were originally placed in the top three forms from where the vast majority of the '0' level entrants came, were by the end of the second year and third year, finding themselves in some difficulty with school work and, after being relegated to

<sup>80.</sup> See Section ii in this chapter.

<sup>81.</sup> See Table 16 in Appendix i for a detailed analysis relating to the separate years 1955-65.

lower forms, either left before completing the fifth year or were not entered for 'O' level or did badly at 'O' level.

A second analysis, using only the results of those selective pupils who were entered for '0' level examinations, produced an even more significant result<sup>(82)</sup> which indicated that selective pupils entered for '0' level examinations achieved better results after unstreaming, in the sense that they tended to avoid gaining no passes at all and were more likely to gain passes in four or more subjects than in the period when the school was streamed.

It is apparent that unstreaming was accompanied by improved results at '0' level in the case of selective pupils to a more significant extent than was found to be the case for the fifth form group considered as a whole.

A similar analysis was carried out in respect of the group of non-selective pupils completing the fifth year, using the following data. (83)

Observed frequencies

	Numbers of passes						
Years	0	1, 2 or 3	4 or more	Totals			
1955-61	185	90	26	301			
1962-65	123	121	41	285			
Totals	308	211	67	586			

Expected frequencies

	Numbers	of pass	es
0	1, 2 or 3	4 or more	Totals
159	108	34	301
149	103	33	285
308	211	67	586

The chi-square value resulting from this analysis was 18.76 which is not only very significant, but more so than the result obtained in the case of selective pupils and much more significant than in the case of the analysis relating to the fifth form group as a whole.

Although this result indicates a significant tendency for non-selective pupils in the fifth form to do better at '0' level after 1961, it is, as

<sup>82.</sup> A chi-square of 14.65 which is larger than the value of 11.99 found for the whole of the fifth form in the last section.

<sup>83.</sup> See Table 17 in Appendix i for a detailed analysis relating to the years 1955-65.

opposed to the case of selective pupils, much more in respect of passing in one, two and three subjects, than in passing four or more, although this is apparent to some extent. The most marked improvement, however, is seen to be in respect of the numbers of non-selective pupils in the fifth form who, in the earlier period, failed to gain any passes at all.

A second analysis relating to the group of non-selective pupils who were entered for '0' level examinations, produced a chi-square of 10.62 which, whilst significant at the one per cent level, is not so significant as the value obtained in the earlier analysis relating to all pupils in the fifth form and selective pupils entered for '0' level examinations. Unlike the case of selective pupils, there is little indication that non-selective pupils entered for '0' level examinations fared much better, after unstreaming, in respect of gaining four or more passes. The most significant tendency, after 1961, was for non-selective pupils entered for '0' level to avoid failing altogether and to gain passes in one, two and three subjects compared with the earlier period.

The following table of chi-squares enables a comparison to be made between the various categories of pupils in respect of the degree of significance to be attached to the change in the pattern of the 'O' level results after the abandonment of streaming. All relate to analyses involving two degrees of freedom, with a one per cent level of significance of 9.21.

	Chi-square values
All pupils in the fifth form	9.05
All pupils in the fifth form entered for 'O' level	11.99
Selective pupils in the fifth form	11.96
Selective pupils in the fifth form entered for 'O' level	14.65
Non-selective pupils in the fifth form	18.76
Non-selective pupils in the fifth form entered for 'O' level	10.62

Using these values as a basis of comparison indicates that the most significant alteration, after the abandonment of streaming, was associated with the group of non-selective pupils who completed the fifth year. These pupils, after the onset of unstreaming, were more likely to leave school with at least one pass at 'O' level to their credit than they previously were, and very much more likely to leave with one, two or three passes compared with the earlier period.

The next most significant result is associated with selective pupils entered for 'O' level examinations who were much more likely to gain passes in four or more subjects and to leave school with at least one pass at 'O' level than in the earlier period.

The difference between the chi-square values for the remaining categories are not significantly large and it would be unwise to differentiate too closely between the effects associated with the other categories of pupils. It should be noted, however, that although the value associated with the whole group of non-selective pupils in the fifth form is more significant than the value associated with the whole group of selective pupils in the fifth form, this is not so in the case of the groups of non-selective pupils and selective pupils who were entered for examinations. The benefits accruing to selective pupils entered for examinations, after unstreaming, appear to be more significant than those accruing to non-selective pupils entered for examinations.

If finally, an analysis is undertaken to indicate the percentage of selective pupils and non-selective pupils entering the school who subsequently succeeded in passing at least one subject at 'O' level, the following table results.

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
% S	66.0	66.3	57•5	67.9	60.2	65.8	54.7	66.7	60.0	76.5	82.7	65.4
% N-S	6.5	14.9	6.8	4.1	8.7	8.5	7.6	14.5	19.4	27.7	33.3	13.2

These figures confirm the improvement in performance of both groups of pupils following the onset of unstreaming whilst the following table indicates very clearly the large increase, amounting to a trebling of the previous percentage, in the proportion of non-selective pupils who, after 1961, gained one pass or more at '0' level. (84)

	Percentages	gaining	one pass or more
	<u> 1955-61</u>	<u> 1962-65</u>	Differences
Selective pupils	62.2	71.4	9.2
Non-selective pupils	8.0	24.1	16.1
Differences	54.2	47.3	

It would appear that unstreaming was not only accompanied by an increase in the proportion of selective and non-selective pupils who were entered for '0' level and passed '0' level examinations, but that a higher proportion of the increased entry was successful than in the earlier period. (85)

If instead of comparing the numbers of pupils who, in the two periods, were successful in passing 'O' level examinations, the numbers of subject passes gained by selective and non-selective pupils are examined, the following table results.

Numbers of '0' level subject passes gained by selective and non-selective pupils

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
s	243	268	212	169	180	172	134	193	195	237	272	2275
N-S	28	61	32	29	28	48	35	61	68	116	170	676
Total	271	329	244	198	208	220	169	254	263	353	442	2951

<sup>84.</sup> These results should be compared with the corresponding figures relating to '0' level entries for selective and non-selective pupils, over the same periods. The non-selective entries rose from 12.4% to 30.3%, a smaller increase than that to be seen in the case of the results. See Section ii in this Chapter.

<sup>85.</sup> The selective group did much better than the non-selective group in this respect, an increased percentage entry of only 2.6% over the two periods being followed by an increased percentage pass rate of 9.2%.

Using these figures as a means of comparison between selective and non-selective pupils in the periods before and after unstreaming commenced, produced the highly significant chi-square value of 100.97, which indicates a highly significant tendency for non-streaming to be accompanied by a large increase in the number of passes gained by non-selective pupils. (86)

#### Observed frequencies

	Number of passes				
Years	s	N.S.	Total		
1955-61	1378	261	1639		
1962-65	897	415	1312		

2275

Totals

676

Expected frequencies

Number of passes					
s	N.S.	Total			
1264	375	1639			
1011	301	1312			
2275	676	2951			

Of all the pupils who passed 'O' level subjects and who came from the first intake with which this investigation is concerned, the 1955 intake, five out of every six were selective pupils. Indeed, during the whole of the period when the school was streamed, more than three pupils out of every four who passed at 'O' level were selective. This was largely because all the selective pupils were placed, on entry to the school, in the top three forms which were the only ones thought to contain substantial numbers of pupils capable of pursuing a course of 'O' level studies. If pupils of high academic ability were wrongly placed in a lower form, on entry to the school, then the system permitted them to be transferred to a higher form at a subsequent stage. The following table indicates the percentages of selective and non-selective pupils who passed in one subject or more from each of the years' intakes 1955-65, expressed as a percentage of the total annual intake for each year.

2951

<sup>86.</sup> The chi-square associated with the analysis of the subject entries was 189.75, an even more significant value than this.

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
s	21.9	20.8	18.1	16.9	16.1	16.7	18.4	21.3	21.5	25.1	23.2	19.8
N.S.	4.2	10.2	4.7	3.1	6.4	6.4	5 <b>.1</b>	9•9	12.4	18.6	24.0	9.2
Total	26.1	31.0	22.8	20.0	22.5	23.1	23.4	31.2	33.9	43.7	47.2	29.0

It can be seen how, from 1962 onwards, the percentage of the total annual intake gaining one pass or more moved in favour of the non-selective group of pupils so that by the time the 1965 intake entered the fifth form, non-selective pupils constituted the largest percentage of those gaining some success at 'O' level, the first time in the period since the school opened that this had been the case. The figures relating to the whole of the two periods prior to amafter unstreaming are shown below.

Gaining 1 pass or more as a % of total intake

	1955-61	1962-65	Differences
Selective pupils	18.3	22.8	4.5
Non-selective pupils	5•7	16.4	16.7
Total	24.0	39.2	15.2

It can be seen that of the total increase of 15.2% of pupils who in the second period passed at 'O' level, 10.7% came from the non-selective group, and only 4.5% from the selective group.

One of the best indicators of examination performance is that which relates the number of subject passes gained to the number of subject entries made. In the following analysis, designed to show how selective and non-selective pupils fared in this respect, it is clear that selective pupils entered for 'O' level subjects were, generally speaking, more successful in passing than were non-selective pupils. Only in two years out of eleven (87) did non-selective pupils achieve a higher pass rate in relation to the entry than did selective pupils.

<sup>87.</sup> In these years, 1958 and 1960, the non-selective pupils formed a larger proportion of the annual intake than normal because of the larger annual intake for those years, although it was also the same in 1959, so this cannot be the entire explanation.

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
s	56.4	62.2	59.6	42.9	45.6	54.6	56.1	60.7	73.6	66.8	70.5	58.6
N.S.	37.3	53•5	51.6	46.8	30.8	55.2	46.7	59.2	69.4	57.7	54.3	52.8
Total	53.6	60.4	58.4	43.4	42.8	54.7	53.8	60.3	72.5	63.5	63.2	57.1

In answer to the question, 'Did the abandonment of streaming lead to non-selective pupils achieving a higher percentage of subject passes in relation to entries?' the answer is, undoubtedly, 'Yes' as is indicated in the following analysis and in which it is apparent that, after 1961, the percentage pass rate in relation to subject entries, of non-selective pupils, increased by almost 12% compared with the earlier period. At the same time, it can be seen that the achievement of selective pupils improved even more so than did that of non-selective pupils. Furthermore, the differences between the columns, as opposed to the rows, indicates that, after unstreaming, the gap between the performance of selective and non-selective pupils widened. (88)

Numbers of subject passes as a % of subject entries

	<u> 1955-61</u>	<u> 1962-65</u>	Differences
Selective pupils	53.8	67.7	13.9
Non-selective pupils	46.1	58.0	11.9
Differences	7.7	9.7	

The results of this analysis are best stated by saying that, although non-streaming resulted in an improvement in the subject pass rate for both selective and non-selective pupils, the selective group benefited most. (89)

This implied that a selective pupil was the more likely to pass the subjects

<sup>88.</sup> By a factor of 2% - the difference before 1961 was 7.7% and afterwards it rose to 9.7%

<sup>89.</sup> This is the more remarkable when it is realised that the number of subject entries made on behalf of selective pupils was, throughout the ll-year period, greatly in excess of those made on behalf of non-selective pupils, 566 for non-selective pupils compared with 2561 for selective in the period 1955-61 and 715 for non-selective compared with 1324 for selective in the period 1962-65.

he was entered for than was a non-selective pupil whether the school was streamed or unstreamed and that unstreaming did not diminish, but increased, this likelihood.

Although selective pupils may have benefited more from unstreaming, in some respects, than did non-selective pupils, the benefits accruing to non-selective pupils, by comparison with the selective group, cannot be over-looked. One of these is indicated in the following analysis which shows the numbers of passes gained by selective and non-selective pupils as a percentage of the total number of passes gained by each year group.

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
% S	89.7	81.5	86.9	85.4	86.5	78.2	79.3	76.0	74.1	67.1	61.5	77.1
% N.S.	10.3	18.5	13.1	14.6	13.5	21.8	20.7	24.0	25.9	32.9	38.5	22.9

If all the subject passes gained over the ll-year period are considered, then these figures indicate that over 77% of them were gained by selective pupils and only just under 23% by non-selective pupils. These figures hide, however, the fact that unstreaming was accompanied by an increase in the proportion of the total annual number of subject passes gained by non-selective pupils and a corresponding decrease in the proportion of subject passes gained by selective pupils, so that by the time the 1965 intake sat for '0' level examinations, nearly 40% of the passes gained were obtained by non-selective pupils compared with just over 20% which non-selective pupils from the 1961 intake obtained, four years earlier.

Figures for the two separate periods before and after unstreaming, are shown below and indicate that non-selective pupils gained a substantially greater proportion of the subject passes after the onset of unstreaming and the selective pupils a smaller percentage than in the earlier period. It can be seen, for instance, that unstreaming was accompanied by a doubling of the contribution from non-selective pupils and a reduction of over 15% in that from selective pupils.

# Numbers of passes as a percentage of total numbers of passes gained in each period

	1955-61	<u> 1962-65</u>	<u>Differences</u>
Selective pupils	84.1	68.4	- 15.7
Non-selective pupils	15.9	31.6	15.7

It is also of interest to enquire what the effects of unstreaming were on the average number of subject passes gained at '0' level by each pupil. Considering the ll-year period as a whole, the average number of subject passes gained by selective pupils was nearly double that gained by non-selective pupils, but this again hides the fact that, unstreaming was accompanied by an increase in the average number of passes gained at '0' level by both groups of pupils.

	Av	erage	number	of su	bject	passes	gaine	d per	pupil	entere	<u>:d</u>	
Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
s	3.3	4.3	3.4	2.6	2.6	3.0	2.5	3.3	3•9	3.4	4.2	3.3
N.S.	1.1	1.8	1.9	1.5	0.9	1.5	1.8	1.8	2.1	2.0	2.2	1.8
Total	2.7	3.4	3.1	2.3	2.1	2.5	2.3	2.8	3.2	2.8	3.1	2.8

A further analysis covering the whole of the two periods 1955-61 and 1962-65, shows clearly how unstreaming was accompanied by a greater improvement in the average number of subject passes obtained by selective pupils than by non-selective pupils, although both groups benefited.

	1955-61	<u> 1962<b>-</b>65</u>	Differences
Selective pupils	3.1	<b>3.7</b>	0.6
Non-selective pupils	1.5	2.0	0.5
Differences	1.6	1.7	

These results suggest that where there is an improvement in examination performance, as a consequence of unstreaming, it is the selective pupils of higher ability who benefit most. (90)

The statistic which indicates most clearly the quality of the passes achieved at 'O' level is that relating to the average grade achieved in the subjects for which pupils were entered. The following table shows how selective and non-selective pupils fared in this regard. (91)

Average grade achieved per subject ent	Average	grade	achieved	per	subject	entr
--	---------	-------	----------	-----	---------	------

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965 Total
s	6.1	5•7	5.6	6.6	6.6	6.0	5.8	5.6	4.9	5.2	5.0 5.8
N.S.	6.8	6.0	6.1	6.3	6.7	5•9	6.2	5.8	5.4	5•9	6.0 6.0
Total	6.2	5•7	5•7	6.6	6.6	6.0	5•9	5 <b>.</b> 6	5.0	5•5	5.5 5.8

These figures show that, apart from the 1958 and 1960 intakes, the average grade per subject entry achieved by selective pupils is higher than that achieved by non-selective pupils and that, whilst unstreaming was accompanied by an improvement in the average grade for both categories of pupils, it is the selective pupils who, again, benefited most. This is seen in the following table where in the period 1955-61, the difference between the average grade for selective and non-selective pupils was only 0.2 of a grade, but that, after 1961, the difference in achievement widened to 0.6 of a grade.

<sup>90.</sup> Note that before unstreaming, the difference between the selective group and non-selective group was 1.6 subjects per pupil, rising to 1.7 subjects per pupil after unstreaming commenced, in spite of the much greater number of subject entries made on behalf of selective pupils.

<sup>91.</sup> See Table 18 in Appendix i for more detailed figures on which this table is based.

### Average grade per subject entry

	1955-61	1962-65	Differences
Selective pupils	6.1	5.2	0.9
Non-selective pupils	6.3	5.8	0.5
Differences	0.2	0.6	

The general conclusion would appear to be that unstreaming was accompanied by an improvement in the quality of the passes obtained by all pupils, but that the selective pupils benefited more than the non-selective pupils. What must not be overlooked, however, is the fact that the performance of the non-selective pupils increased, after unstreaming, to a point where the average grade obtained per subject entry was higher than that gained by the selective group in the period before the onset of unstreaming. (92)

The transition to unstreaming was accompanied, therefore, not only by an increase in the average number of subject passes gained by selective pupils entered for 'O' level, compared with non-selective pupils, but the average grade achieved by selective pupils also improved more than did that of the non-selective pupils.

<sup>92.</sup> The non-selective group achieved 5.8 as an average grade per subject after unstreaming compared with only 6.1 achieved by the selective group when the school was streamed.

#### NORTHERN UNIVERSITIES JOINT MATRICULATION BOARD AND

#### ASSOCIATED EXAMINING BOARD - THE RESULTS

The results of previous analyses in the earlier parts of this chapter have shown that the abandonment of streaming was accompanied by an increase in the number and an improvement in the quality of the 'O' level passes gained by both selective and non-selective pupils. As the transition to non-streaming coincided with the point at which larger numbers of entries began to be made under the regulations of the Associated Examining Board, it is of some consequence to enquire whether the improvement in examination performance is in any way associated with this (93) and, if so, to what extent. The present section is, therefore, devoted to a comparison of the results achieved under the Northern Universities Joint Matriculation Board and the Associated Examining Board, during the period before and after the onset of non-streaming.

An examination of the data relating to the number of pupils who were successful at 'O' level over the ll-year period 1955-65, indicates that: (94)

- 1. More pupils passed in one or more subjects under the Joint Matriculation Board than under the Associated Examining Board. (95)
- 2. No pupil passed in more than six subjects in the Associated Examining Board examinations, whereas up to ten subjects were passed by some pupils in the Joint Matriculation Board examinations.
- 3. Only in the case of pupils passing in one and two subjects did the Associated Examining Board numbers exceed those of the Joint Matriculation Board.
- 4. There is no appreciable difference in the numbers of those entered for the examinations of both Boards who failed to obtain any passes. (96)
- 5. In all years except 1963-65 inclusive, did the numbers of pupils passing in the Joint Matriculation Board examinations exceed those of the Associated Examining Board.

<sup>93.</sup> See Section iii for details of the entries made under both Boards.

<sup>94.</sup> See Tables 19 and 20 in Appendix i.

<sup>95. 697</sup> pupils passed J.M.B. examinations compared with 637 passing A.E.B. examinations.

<sup>96. 225</sup> failed A.E.B. examinations compared with 247 failing J.M.B. examinations.

These observations hide, however, some very important differences between the results achieved under the two boards in the periods before and after the onset of unstreaming.

An analysis of the numbers of pupils gaining various numbers of passes under the <u>Joint Matriculation Board</u>, for instance, in the periods prior to and after the abandonment of streaming, produced a chi-square of 39.35 which indicates a very significant tendency, in the period 1962-65, for pupils to gain fewer passes in all categories, but more particularly in four or more subjects, compared with the earlier period.

This result does not necessarily imply that powrer results were obtained in Joint Matriculation Board examinations after 1961, but reflects the fact that not so many pupils were being entered and not so many were gaining passes by comparison with the earlier period. (97)

A similar analysis relating to pupils obtaining passes under the Associated Examining Board was carried out and produced a chi-square of 132.85 which is extremely significant and indicates a tendency for more pupils, in the period 1962-65, to gain four or more passes than previously was the case. Also indicated is a tendency to avoid gaining no passes by comparison with the earlier period, although no tendency to an improvement or otherwise is noted with regard to passing one, two and three subjects under the Associated Examining Board after streaming was abandoned.

These results are confirmed in the following analysis which shows the numbers of pupils gaining various numbers of passes under both Boards in the two four-year periods before and after unstreaming commenced.

<sup>97.</sup> See Section iii in present Chapter for details of entries.

Numbers of pupils gaining various numbers of passes

	1958	1962-65	
	J.M.Bd.	A.E.Bd.	J.M.Bd. A.E.Bd.
6 subjects or more	15		5 4
5 subjects	20		9 18
4 subjects	21		19 31
3 subjects	54	2	48 63
2 subjects	5 <b>3</b>	26	70 96
1 subject	59	125	132 124
O (only those entered)	75	103	110 57
	297	256	393 393

These figures show clearly, how in the period 1962-65, the numbers of pupils gaining four or more passes in the Joint Matriculation Board examinations fell and how the number gaining four or more passes in the Associated Examining Board examinations rose. (98) Whilst the numbers of those gaining passes in one, two and three subjects under both Boards rose, they did so to a greater extent under the Associated Examining Board. (99) At the same time, the number of pupils who failed to gain any passes at all rose under the Joint Matriculation Board and fell sharply under the Associated Examining Board, confirming the results of the chi-squared analysis.

Whilst these results are, to some extent, merely the consequence of more pupils being entered for the Associated Board examinations in the period 1962-65, the possibility that the pupils entered for Associated Board examinations achieved better results than they would have done had they been entered for the examinations of the Joint Matriculation Board must not be overlooked.

<sup>98.</sup> It fell from 56 to 33 in the J.M.B. examinations and rose from 0 to 53 in the A.E.B. examinations.

<sup>99.</sup> The numbers rose from 166 to 250 in the J.M.B. examinations and from 153 to 283 in the A.E.B. examinations, increases of 84 and 130 respectively.

Whether this is so or not can only be answered by looking at the results associated with both Examining Boards in greater detail.

A useful indicator of examination success is the number of pupils gaining various numbers of passes expressed as a percentage of the number of pupils entered for that number of subjects. (100) Although there is little variation between the two Boards, considering the ll-year period 1955-65 as a whole, in the numbers gaining one pass or more at '0' level expressed as a percentage of the number of pupils entered for one or more subjects, (101) this hides the fact that during the periods before and after the abandonment of streaming, there was considerable variation in the pattern of the results associated with the two Boards. This is seen in the following table.

Numbers of pupils gaining various numbers of passes, expressed cumulatively, as a percentage of the numbers of pupils entered for the same number of subjects

	195	<u>5-61</u>	<u> 1962-65</u>
	J.M.Bd.	A.E.Bd.	$\underline{J.M.Bd}.$ $\underline{A.E.Bd}.$
7 subjects or more	21.5		33.3
6 subjects or more	24.6		29.4 23.5
5 subjects or more	31.8		29.8 45.8
4 subjects or more	42.1	0	31.4 57.0
3 subjects or more	58.0	5•9	43.8 64.4
2 subjects or more	71.0	32.8	52.6 80.3
1 subject or more	75.1	64.2	72.0 85.5

Using the criterion indicated above as a basis of comparison, it can be seen how, in the period 1962-65, the Associated Examining Board results were considerably better than those of the Joint Matriculation Board in all

<sup>100.</sup> See Tables 21 and 22 in Appendix i for details of each year's results.

<sup>101</sup> The figures are 73.8% for the J.M.B. and 73.9% for the A.E.B.

categories except six passes or more. (102) It can also be seen how the Joint Matriculation Board results were not as good in the period 1962-65 as they were in the earlier period except in the case of six or more subjects, and how the results achieved in the period 1962-65 under the Associated Examining Board are better than those achieved in the earlier period by pupils using either of the two Boards.

The indications noted above for pupils to achieve better results after 1961 in the Associated Examining Board examinations than in the earlier period are confirmed in the following analysis in which the numbers of subject passes obtained under each Board are expressed as a percentage of the number of subject entries. (103)

Subject passes	as a	percentage	of a	subject	entries

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
J.M.B.	56.6	60.8	55.0	46.7	46.5	51.5	52.2	54.1	62.0	50.2	51.3	53.4
A.E.B.	44.4	58.9	69.0	36.0	32.3	67.9	60.0	77.2	84.5	74.0	70.6	63.9
Total	53.6	60.4	58.4	43.4	42.8	54.7	53.8	60.3	70.8	63.5	63.2	57.0

These figures reveal how the improvement in performance of pupils entered for Associated Board examinations did not coincide precisely with the onset of unstreaming but commenced two years earlier with the 1960 intake. (104) It must be remembered, however, that the 1960 intake was subject to some re-organisation in its fourth year when three blocks of parallel forms were formed and an option system introduced for the first time for six forms in two of these blocks. The effects of this improvement which commenced in 1960 but which gathered momentum as more unstreaming took place, are seen clearly in the following table which shows figures relating to the two periods.

<sup>102.</sup> e.g. 85.5% of all pupils entered for one subject or more in the A.E.B. examinations passed in one or more subjects compared with only 72.0% in the J.M.B. examinations.

<sup>103.</sup> See Tables 23 and 24 in Appendix i for details of the data on which the analyses in this section are based.

<sup>104.</sup> The improvement in the 1960 intake results may also be associated with the fact that only 19.4% of the total '0' level entry for that year consisted of A.E.B. subjects.

#### Passes as a percentage of entries

	<u> 1955-61</u>	<u> 1962-65</u>	<u>Differences</u>
J.M.B.	53.1	54.1	1.0
A.E.B.	50.2	74.4	24.2
Total	52.4	64.3	11.9

It can be seen that in the period 1955-61, a high success rate was achieved by pupils entered for the examinations of the Joint Matriculation Board, but that, after 1961, the percentage of subject passes achieved in relation to entries made was much higher in respect of subjects taken under the regulations of the Associated Examining Board than it was in the earlier period under either the Joint Matriculation Board or the Associated Examining Board.

It is apparent that the success of pupils entered for Joint Matriculation Board examinations did not diminish after unstreaming.

Indeed, the percentage pass rate rose slightly but not so much as did that associated with the Associated Examining Board subjects which rose by 24 per cent by comparison with the earlier period.

The fact that in the earlier period the success rate for the Associated Examining Board subjects was almost three per cent less than the Joint Matriculation Board and, in the later period, over 20 per cent higher than the Joint Matriculation Board, indicates that unstreaming was accompanied by an increased probability that pupils entered for Associated Examining Board subjects would be more likely to pass than if they were entered for Joint Matriculation Board subjects. (105)

The following table shows the average number of subject passes gained by each pupil entered for 'O' level examinations under each of the examining boards in the periods before and after unstreaming. (106)

<sup>105.</sup> This does not contradict, however, the earlier indication that pupils entered for six or more subjects under the J.M.B. regulations were more likely to pass six or more subjects than those entered for A.E.B. examinations.

<sup>106.</sup> See Table 25 in Appendix i for figures relating to each annual intake.

#### Average number of subject passes per pupil

	<u> 1955-61</u>	1962-65	<u> 1955–65</u>
J.M.B.	2.3	1.4	1.9
A.E.B.	0.8	1.9	1.3
Total	2.6	2.9	2.8

If the figures in this table are compared with those showing the number of subject entries made on behalf of each pupil during the same period, (107) the following table of differences is obtained by subtracting the figures in the table of results from those in the table of entries.

E.g. 4.3 subject entries per pupil in Joint Matriculation Board examinations in 1955-61 gave results of 2.3 subject passes per pupil, a difference of 2.0 subjects per pupil.

Table of differences

	1955-61	<u> 1962-65</u>	<u> 1955-65</u>
J.M.B.	2.0	1.2	1.7
A.E.B.	0.8	0.6	0.9
Total	2.4	1.7	2.0

If these differences are then expressed as a percentage of the number of subject entries per pupil, a comparison can then be made between the success rate of the entries made under the two boards during each of the periods in question, and over the whole of the ll-year period. The smaller percentage errors representing the entry that was most successful.

Table showing the difference between subject entries per pupil and subject passes per pupil expressed as a percentage of the number of subject entries per pupil

	<u>1955-61</u>	1962-65	1955-65
J.M.B.	46.5	46.2	47.2
A.E.B.	50.0	24.0	45.0
Total	48.0	37.0	41.6

Matriculation Board entry did not change substantially over the 11-year period, the difference between entry rate per pupil and pass rate per pupil remaining constant. On the other hand, during the period when the school was streamed the difference between the Associated Examining Board entry and results was greater than was the case in the Joint Matriculation Board examinations, the latter producing the better results. After the onset of unstreaming, the Associated Examining Board entry was much more accurate in the sense that the number of subject passes obtained per pupil was very much closer to the number of subject entries made on behalf of each pupil than had previously been the case under either of the boards when the school was streamed.

Although the number of subject entries made on behalf of pupils in the Associated Board examinations increased, after unstreaming, they still constituted less than half the total number of entries made in the four-year period 1962-65. (108) The improvement in Associated Examining Board results during this period is clearly seen when it is realised that well over half the total number of passes obtained during this period were those resulting from Associated Examining Board entries, as the following table shows.

<sup>108.</sup> These were as follows. A.E.B. - 49% of total entry and J.M.B. - 51% of total entry. See Section iii in this Chapter for further details.

## Subject passes as a percentage of total subject passes

	1955-61	<u> 1962-65</u>	<u> 1955-65</u>
J.M.B.	76.8	43.1	61.8
A.E.B.	23.2	56.9	38.2
Total	100.0	100.0	100.0

At the same time it must be pointed out that it is the results associated with the 1964 and 1965 intakes which are largely responsible for this state of affairs. (109) In the period 1955-61, there was hardly any difference between the percentage of subject passes and the percentage of subject entries made under the two boards. (110)

Another useful indicator of examination success is to be seen in the number of pupils who were entered for 'O' level subjects and who failed to gain any passes. If the numbers of pupils gaining no passes under the two boards are expressed as a percentage of the total number of pupils entered for 'O' level examinations, the following table results.

Number of pupils entered and gaining no passes as a percentage of the total entry

	<u> 1955-61</u>	<u> 1962-65</u>	<u> 1955-65</u>
J.M.B.	24.9	28.0	26.2
A.E.B.	35.8	14.5	26.1
Total	21.6	13.0	18.0

It is clearly seen that in the period 1955-61, pupils entered for Associated Board examinations were more likely to fail than were those entered for Joint Matriculation Board examinations, but, after 1961, the situation changed and the Associated Board entrants were not only considerably less likely to fail than they were in the earlier period but considerably less likely to fail than were those pupils entered for the Joint

<sup>109.</sup> See Table 26 in Appendix i.

<sup>110.</sup> The actual figures relating to entries were as follows: J.M.B. 75.7%. A.E.B. - 24.3% which compare well with the figures relating to passes in the table above. J.M.B. - 76.8% and A.E.B. - 23.2%. See Section iii in this Chapter for further information concerning the entry figures.

Matriculation Board examinations in any period. Although not highly significant, pupils entered for Joint Matriculation Board examinations, after unstreaming commenced, were more likely to fail completely than in the earlier period. The reduction in the percentage of the total entry for 'O' level who, after unstreaming, gained no passes was, therefore, principally due to the influence of the Associated Board entries. (111)

If the quality of the passes obtained under each Board are considered by reference to the grades achieved in each subject entry, (112) the following figures indicate that, before unstreaming, there was little difference between the average grade per subject obtained under the two boards.

	Average gr	cade per sub	ject entry
	<u> 1955-61</u>	1962-65	<u> 1955-65</u>
J.M.B.	6.1	5.8	6.0
A.E.B.	6.2	5.0	5.5
Total	6.1	5.4	<u> </u>

After unstreaming commenced, it can be seen how there was considerable improvement in the average grades obtained in Associated Examining Board examinations compared with Joint Matriculation Board examinations, although it should also be noted that the latter did improve after streaming was abandoned.

In attempting to decide what part, if any, the increase in Associated Examining Board entries played in the significant improvement in '0' level results which followed the abandonment of streaming, the following criteria have been utilised in this section. A summary of these follows.

<sup>111.</sup> This is seen by reference to Table 28 in Appendix i where the figures for each year are shown.

<sup>112.</sup> See Table 27 in Appendix i.

- 1. The number of pupils gaining various numbers of passes as a percentage of the number of pupils entered for the same number of subjects.
  - 1955-61 J.M.B. produced better results than A.E.B. in all categories.
  - J.M.B. not as good as in earlier period except in the case of six or more passes.

    A.E.B. produced better results than J.M.B. in all categories except six or more passes.
- 2. Number of subject passes as a percentage of subject entries.
  - 1955-61 J.M.B. produced better results than A.E.B.
  - 1962-65 J.M.B. slightly, but not significantly, better than in earlier period.

    A.E.B. greatly improved and better than J.M.B. was in earlier period or in this period.
- 3. The difference between the average number of passes per pupil and the average number of subject entries per pupil
  - J.M.B. did equally well in both periods.
    J.M.B. produced better results than A.E.B. if period as a whole is considered, although A.E.B. did better in certain years.
  - 1962-65 A.E.B. greatly improved by comparison with previous period and better than J.M.B. results in this or in earlier period.
- 4. Pupils who gained no passes at all as a percentage of total number of pupils entered for '0' level examinations.
  - 1955-61 J.M.B. better than A.E.B.
  - 1962-65 J.M.B. results not as good as in previous period.
    A.E.B. results better than in earlier period and better than J.M.B. in either period.
- 5. Average grade per subject entry.
  - 1955-61 J.M.B. better than A.E.B.
  - 1962-65 J.M.B. better than in previous period.
    A.E.B. much improved and better than J.M.B. in either period.

The change in the pattern of the 'O' level results which coincided with the abandonment of streaming consisted of (a) an increase in the numbers of pupils sitting for and passing 'O' level subjects and (b) an improvement in the 'O' level results compared with the earlier period.

As far as the first of these is concerned, it is fairly obvious that had the style of entry continued as it had been in the earlier period, the increase in the numbers of pupils sitting and passing '0' level subjects, whatever indicator was adopted to describe this, would have taken place as greater numbers of pupils were given opportunities previously denied them. This follows from the fact that Joint Matriculation Board examinations results in the period 1962-65, whilst not appreciably better than in the earlier period and not as good as those of the Associated Examining Board, were no worse than they were previously and by most criteria slightly better than before.

There is evidence to suggest, however, that the switch from Joint Matriculation Board to Associated Examining Board examinations which took place in certain subjects at the same time that streaming was abandoned, or shortly after, led to more pupils being successful in gaining passes in certain subjects than probably would have occurred had not the switch taken place. (113) Certainly it led to fewer pupils failing completely at 'O' level. This should not, however, be regarded as equivalent to saying that the Associated Examining Board examinations were marked less stringently or that they were easier to pass than the Joint Matriculation Board examinations, although for certain pupils the latter is probably to some extent the case. (114) What, in effect, occurred was that, after the abandonment of streaming, the staff concerned with the teaching of certain subjects realised that the content of the syllabus previously used and the methods of instruction employed were either not entirely appropriate to the unstreamed group or were not educationally as sound as they might be or were not as

<sup>113.</sup> The 1963 intake was the last one to sit for French, Geography and English Language under the regulations of the J.M.B. and the 1964 intake was the last one to sit for History, English Literature and Engineering Workshop Theory and Practice under the J.M.B.

See also page 93 in this Section for an indication that the improvement in A.E.B. results commenced with the 1960 intake which was the first intake to be offered an option system in its fourth year.

<sup>114.</sup> There is some suggestion that pupils with a high capacity for memorizing information were at some advantage by comparison with others in passing J.M.B. examinations during the period in question.

effective in achieving certain objectives now seen to be desirable in the unstreamed situation. It was, for instance, considered more desirable that a less academic approach should be adopted in certain subjects with more emphasis being placed on practical experience and less on preparing pupils to pass a formal type of examination which placed a high premium on memory and made few demands with regard to the application of knowledge. (115)

Unstreaming made several departments more aware of the fact that, for many years, their syllabus and teaching methods had been dictated by the requirements of an examination whose style and whose objectives they now began to doubt. For some subjects, therefore, the Associated Board examinations were seen to be more appropriate than those of the Joint Matriculation Board and enabled a more satisfactory approach to be made to the teaching of groups which, if not completely unstreamed in the fourth and fifth years, were very different from the groups previously taught when the school was streamed. They contained pupils of lower academic ability as measured by the Verbal Reasoning Quotient but who, nevertheless, were quite able to cope with 'O' level work that placed more emphasis on other things than memory, the copying out of work from the blackboard and the regurgitation of facts.

It would not be true to say, therefore, that unstreaming considered merely as a process, was primarily responsible for the improvement in the quality of the '0' level results which occurred, although it was undoubtedly the case that, after unstreaming commenced, an improvement took place even in those subjects that continued to be examined under the Joint Matriculation Board regulations. The fact that the improvement in '0' level results did not coincide exactly with the abandonment of streaming and did not show a uniform progression from the 1962 intake onwards, suggests that other factors were involved than the mere fact of unstreaming. (116)

<sup>115.</sup> For example, the Geography Department became aware of the need to involve their pupils in a great deal more field study work and other activities.

<sup>116.</sup> This is seen if the effects that are the direct result of unstreaming are examined, when it is seen that the change coincides precisely with the abandonment of streaming and operates uniformly after that point. e.g. the number of pupils completing the five year course.

What unstreaming did was to force staff to examine certain fundamental questions concerning the relevance of previous teaching methods and syllabuses to the new situation and to find answers to some of these questions. The staff were now faced with an entirely new situation which forced them to do so. (117) Some of the answers led to the examinations of the Associated Examining Board being used to a greater extent than previously, not because they were easier to pass but because they were seen to be more relevant to the unstreamed groups. (118) This, in turn, led to improved results being obtained at '0' level as pupils of quite average and slightly above average ability were afforded opportunities of preparing for an examination which did not force them into an academic strait-jacket. In the period when the school was streamed, it was largely the practical subjects that had been examined under the regulations of the Associated Examining Board but, after the onset of unstreaming, subjects such as English, Geography, History and French were, for the first time, in some cases, examined under Associated Examining Board regulations and the results in these subjects improved.

In so far as the process of unstreaming was responsible for creating a situation in which new problems had to be met and new solutions found, it would not be unfair to say that unstreaming was responsible both for the increased numbers who passed 'O' level and for the improvement in the quality of the results.

<sup>117.</sup> See Becoming Comprehensive (Pergamon) 1970. Ed. E. Halsall. P.257

<sup>118.</sup> This was why the improvement in A.E.B. results did not coincide precisely with the abandonment of streaming as departments varied in the speed with which they altered their approach to the unstreamed situation.

## GENERAL CERTIFICATE OF EDUCATION - THE RESULTS

#### IN RELATION TO THE FORM SYSTEM

In Section iii the effects which unstreaming had on the pattern of the 'O' level entry when the pupils who were placed in unstreamed first year forms sat for 'O' level examinations five years later were described. The present section is devoted to describing the changes in the pattern of the 'O' level results looked at from a similar point of view.

Because of the varying numbers of forms in the annual intakes over the ll-year period, it is not possible to compare average values over the periods before and after the abandonment of streaming. The following comparison, however, between the 1961 intake which was the last one to be rigidly streamed on entry to the school and the 1965 intake which was the first one to be completely unstreamed in the first year, indicates fairly clearly the effects that accompanied unstreaming. The figures show the numbers of pupils in each first year form who, five years later, obtained one or more passes at 'O' level and indicate how, over the four year period which separates these intakes, the number of pupils gaining one pass or more increased by over 100%. (119)

1961 entry	lA	18	10	1D	1E	lF	lG	1H	18	1T	Total
Number	20	15	12	9	2	1	0	1	0	0	60
1965 entry	1T	lH	1E	lW	10	1D	ΊL	lA	lN	18	Total
Number	16	13	12	12	9	12	14	17	9	12	126

Numbers of pupils, by themselves, are not very meaningful and the following analysis which shows the percentage of each form who five years after entering the school passed in one or more subjects, shows more clearly the significant effects that accompanied non-streaming. (120)

<sup>119.</sup> See Table 29 in Appendix i for precise figures relating to each intake.

<sup>120.</sup> See Table 30 in Appendix i for precise figures relating to each intake.

1961 entry 1A **1**B 1C 10 1E 1F 1G 1H lS 1T Total % 71.4 50.0 41.4 32.1 7.4 3.4 3.6 23.4 1965 entry 1T 1H 1E lW 10 1D 11 lA lN 1S Total % 57.1 50.0 52.2 48.0 33.3 42.9 56.0 54.8 33.3 44.4 47.2

#### It can be seen that:

- 1. One third or more of all the pupils in every first year form in the 1965 intake eventually passed in one or more subjects at 'O' level compared with only three forms out of ten from the 1961 intake in which this was achieved.
- 2. In five out of the ten forms from the 1965 intake, 50% or more of the pupils passed in one '0' level subject five years later compared with only two forms from the 1961 intake who achieved this.

Comparing the entire period after the onset of unstreaming with that when the school was streamed indicates that:

- 1. In the period 1955-61, 24 first year forms out of 78 contained pupils, one third of whom, five years later, passed in one subject or more at 'O' level compared with 26 forms out of 39 forms in the four year period 1962-65 which achieved a similar result.
- 2. During the period 1955-61, 32 first year forms out of 78 contained pupils who, five years later, failed completely to pass any 'O' level subjects compared with only 8 forms out of 39 for which this was true during the four year period 1962-65.

The effects of a transition to unstreaming are fairly obvious when seen from this point of view and render it easier to understand why unstreaming should have led to such an improvement in the results at 'O' level. This form of analysis reveals how, from the time they entered the school, some pupils were excluded, under the former system, from having the chance to sit for 'O' level examinations. They were clearly seen, on the evidence of the ll-plus achievements, from the moment they entered the school as being unfit to pursue an 'O' level course of studies and they and the staff who taught them accepted such a judgement without questioning it.

If, in addition to considering the number of <u>pupils</u> in first year forms who achieved results at '0' level five years later, the number of '0' level <u>passes</u> subsequently achieved by the same pupils is considered, the significant effects of unstreaming are confirmed. (121)

	Numb	ers of	'0' 1	e <b>vel</b> s	ubject	passe	s subs	equent	ly		
		achie	ved by	pupil	s in f	irst y	ear fo	rms			
1961 intake	lA	18	10	1D	1E	1F	1G	lH	ıs	1T	Total
Number	56	48	30	29	4	1	0	1			169
1965 intake	1T	lh	1E	IW	10	10	1L	lA	lN	ıs	Total
Number	45	51	49	43	30	44	44	49	38	49	442

These figures represent an average of 21 subject passes from each of eight forms out of ten in the 1961 intake compared with an average of over 44 subject passes from each of the ten first year forms in the 1965 intake, an increase of well over 100% per form.

The following table relates to the whole of the periods before and after the abandonment of streaming.

	1955-61	1962-65
Average number of passes per form	21.0	33.6
Average number of passes per form from which pupils were entered	29.8	41.0

It is interesting to note that the greatest number of subject passes achieved by a single form in the whole of the ll-year period was that which in the 1963 intake was taken out as a top streamed form after only one term in the school and which remained intact for the whole of the five year period. (122) The pupils in this form between them obtained more than half

<sup>121.</sup> See Table 31 in Appendix i for precise figures relating to each annual intake.

<sup>122.</sup> See FORUM Vol. 7, No.3. for further information relating to this form.

group. (123) It is also interesting to note that the 1963 intake achieved a pass rate in relation to the subject entry which was the highest ever achieved in any year. (124) These results, whilst of importance, are not perhaps as significant as at first sight appears in view of the fact that the 1963 intake was somewhat a-typical in so far as it was originally only of eight form entry size, (125) it had the largest proportion of selective pupils in any intake and did not contain any non-selective pupils from outside the catchment area as did all other intakes which followed.

It is of value to compare the total number of passes gained five years later by the 1964 and 1965 intakes together, compared with the 1958 and 1959 intakes which were the largest the school ever received and, together, contained 141 more pupils than did the 1964 and 1965 intakes.

	No. of passes gained	No. of pupils in intakes	No. of passes per pupil
1958 and 1959 intakes	406	655	0.62
1964 and 1965 intakes	795	514	1.55

An even more revealing statistic is that which expresses the number of subject passes achieved by pupils in each form as a percentage of the number of subject entries. (126) Apart from the few instances where only one pupil from a particular form was entered for one subject and passed, during the seven year period when the school was streamed, no form achieved a pass rate greater than 70%, whereas in the four year period 1962-65, eight forms achieved a pass rate greater than 70%.

<sup>123.</sup> The numbers were 149 passes out of a total of 263 passes.

<sup>124. 73%</sup> compared with the next highest which was 64%, the following year.

<sup>125.</sup> Originally 245 pupils entered the school of whom only 209 qualified for inclusion in this enquiry, so many non-selective pupils leaving the school before reaching the statutory leaving age and being one more reason why statistical results based on a percentage analysis are likely to be higher for 1963.

<sup>126.</sup> See Table 32 in Appendix i for precise figures relating to each intake.

A comparison between the average number of 'O' level subject passes subsequently gained per pupil entered, (127) in the periods before and after the transition to non-streaming, shows that:

- 1. During the period 1955-61, only 11 first year forms out of 78, had pupils in them who subsequently gained an average of more than three subject passes at 'O' level compared with a total of 12 forms out of 39 in the period 1962-65 in which this average was achieved.
- 2. Similar figures relating to forms who achieved an average of more than two passes per pupil are as follows:
  - 1955-61 21 forms out of 78 1962-65 26 forms out of 39.
- 3. In only one year between 1955-61 did as many as four forms achieve an average number of more than two passes per pupil entered, whereas, between 1962-65, a gradual improvement was seen to the point where, by 1965, all ten forms exceeded an average of two passes per pupil.

Finally, a comparison of the figures relating to the average grade at '0' level, shows how, in addition to the increase in the numbers of pupils who were successful and the number of passes gained, following the onset of non-streaming, the quality of the passes gained also improved. (128) In no year during the period of streaming were the average values for the whole intake superior to those in any of the years following the abandonment of streaming. (129) Furthermore, the improvement in the results of individual forms, consequent upon the transition to non-streaming, is clearly seen from the fact that in four forms out of ten in the completely unstreamed intake of 1965, better average results were obtained than were ever obtained by a single top streamed form in any of the years when the school was streamed. (130) This, by itself, is a remarkably significant statistic.

<sup>127.</sup> See Table 33 in Appendix i for precise figures relating to each intake.

<sup>128.</sup> See Table 34 in Appendix i for precise figures relating to each intake.

<sup>129.</sup> See page 71 in Section v in this Chapter.

<sup>130.</sup> This improvement was not confined to subjects taken under the regulations of a particular examining board. See page 97 in Section vii in this Chapter.

#### CERTIFICATE OF SECONDARY EDUCATION - THE ENTRY

On the 8th July, 1963, the West Midlands Examination Board was set up to administer the Certificate of Secondary Education in the West Midlands region and in the Summer of 1965, those pupils who had entered the school in 1960 sat the examination to be known as The Certificate of Secondary Education. They were the first pupils in the school to do so, although pupils from the 1958 and 1959 intakes had, in 1963 and 1964, sat an examination known as The School Leaving Certificate of the Union of Educational Institutions, which institution assumed responsibility in 1963 for the new Certificate of Secondary Education examination. The transition from one examination to the other as far as the school was concerned was hardly perceptible in the sense that the style of the new examination was similar to that which pupils had taken in 1963 and 1964 under another title. The Union of Educational Institutions examination entries and results have, therefore, been included in the present analysis along with those of the Certificate of Secondary Education. Their inclusion in no way detracts from the validity of the analyses and enables a more worthwhile comparison to be made between the period before and after unstreaming in so far as both periods are of four years duration.

The following figures show how the very first entry made on behalf of the 1958 intake was comparatively small and rose the following year to a level which remained fairly constant until the onset of non-streaming when, apart from the rather small a-typical 1963 intake, it rose significantly. (131)

Average numbers of subject entries per pupil

Year	1958	1959	1960	1961	1962	1963	1964	1965	Total
Entries	272	366	390	349	573	431	615	713	3709
Pupils	64	96	96	83	122	99	144	153	857
Average	4.3	<b>3.</b> 8	4.1	4.2	4.7	4.4	4.3	4.7	4.3

<sup>131.</sup> See page 96 in Section viii in this Chapter.

Not only did the number of pupils entered for the Certificate of Secondary Education increase after streaming was abandoned, but the average number of subjects for which each pupil was entered also rose from 4.1 subjects per pupil in the period 1958-61 to 4.5 subjects per pupil in the period 1962-65. (132)

Although the figures in the previous table indicate a rise in the numbers of pupils entered for the Certificate of Secondary Education after the onset of non-streaming, they do not indicate how this increase was related to specific numbers of subjects. (133) Was it, for instance, the result of some pupils being entered for large numbers of subjects whilst others were entered for small numbers of subjects or was it largely confined to entries in three, four and five subjects? Since the average number of subject entries per pupil, after unstreaming, rose only slightly, and was still of the order of between four and five subjects per pupil, these are two possibilities that suggest themselves.

The following table indicates that, in fact, after 1961, there was an increase in the numbers of pupils entered for all numbers of subjects except five and six subjects. The increase in numbers of entries for seven and eight subjects is particularly noticeable.

	<u> 1958 - 61</u>	<u> 1962 - 65</u>
8 subjects	1	<b>6</b> 8
7 subjects	25	78
6 subjects	66	53
5 subjects	65	53
4 subjects	54	69
3 subjects	44	63
2 subjects	41	60
1 subject	43	74

<sup>132.</sup> During the same period the average number of subject entries per pupil in the G.C.E. dropped from 4.8 to 4.6.

<sup>133.</sup> See Table 35 in Appendix i for precise figures relating to each annual intake.

In an attempt to discover whether there was a statistically significant difference in the style of the entry after unstreaming, an analysis was carried out using the following data.

Observed frequencies

	Numbers of entries							
Years	0	1, 2 or 3	4 or more	Total				
1958-61	120	128	211	459				
1962-65	21	97	321	539				

325

141

Total

Expected frequencies

Numbers of entries							
0	1, 2 or 3	4 or more	Total				
65	149	245	459				
76	176	287	539				
141	325	532	998				

This resulted in a chi-square of 100.56, indicating a highly significant change in the style of entry with a tendency for fewer pupils to be entered for no subjects after unstreaming and for more to be entered for four or more subjects. Also indicated, although not so significant, is a tendency for pupils to be entered for one, two and three subjects in greater numbers after unstreaming. If the frequencies relating to entries for specific numbers of subjects are added together, the following table results and shows that an increase amounting to exactly 50% took place after unstreaming in the numbers of pupils previously entered for Certificate of Secondary Education examinations. (134)

998

532

Numbers entered for one or more subjects

Year	1958	1959	1960	1961	1962	1963	1964	1965	Totals
Number	64	96	96	83	122	99	144	153	857

The greater opportunities afforded to pupils following the appearance of the Certificate of Secondary Education as a second examination are clearly seen when the figures showing the percentages of the original intake

<sup>134.</sup> The figures are 296 and 444 and the increase is largely, though not entirely due to the increase in the numbers of pupils remaining at school for five years after 1961.

entered for various numbers of subjects are studied. In the period 1958-61, 28.2% of all pupils who entered the school eventually sat for one subject or more compared with 52.6% in the period 1962-65, (135) although by the time the completely unstreamed 1965 intake entered the fifth form, almost 60% of the original intake was entered.

The following table shows the entry figures in greater detail.

	Percentage of	of original	intake entered
	1958-61	1962-65	Difference
8 subjects	0.1	6.9	6.8
7 subjects	2.1	7•9	5.8
6 subjects	5•5	5.4	- 0.1
5 subjects	5.4	5•4	0.0
4 subjects	4.5	7.0	2.5
3 subjects	<b>3.</b> 6	6.4	2.8
2 subjects	3.4	6.1	2.7
1 subject	<b>3.</b> 6	7•5	3.9
O subjects	71.8	47.4	24.4

A comparison with the corresponding figures for the General Certificate of Education entry shows that:

- 1. the increases in the percentages of the intake entered for the C.S.E. were greater than those for the G.C.E. after unstreaming, in all categories except four, five and six subjects.
- 2. the largest percentage increases occur in relation to pupils entered for eight, seven and one subject respectively, reflecting the fact that non-selective pupils who previously did not remain at school did so after 1961 and were entered for C.S.E. subjects only or for seven C.S.E. subjects, in combination with a single G.C.E. subject in a practical subject such as Art or Craft. The increase in the number entered for one subject also reflects the fact that selective pupils entered for seven G.C.E. subjects were, after 1961, entered for C.S.E. in Religious Education.

<sup>135.</sup> These should be compared with the corresponding figures for entry to the G.C.E. over the same periods which are 28.2% and 45.3%.

See Table 36 in Appendix i for precise figures relating to each year's intake.

After the onset of non-streaming in 1962, very few pupils who remained at school for five years were not entered for at least one subject in the Certificate of Secondary Education examinations, as the following figures show.

Percentage	of	fi	fth	form	entered	for	one
or	mc	re	C.S	S.E.	subjects		

Year	1958	1959	1960	1961	1962	1963	1964	1965	Total
%	53.8	73.3	85.0	86.5	100	99.0	99.3	89.0	85.9

The figures for the two periods considered as wholes are as follows:

	<u> 1958–61</u>	<u> 1962-65</u>
1 or more G.C.E. subjects	76.0	82.6
1 or more C.S.E. subjects	73.9	96.1

These figures, whilst greater in the period 1962-65, hide the fact that every pupil who, in recent years, has stayed at school for five years, has sat for eight subjects in either the G.C.E. or the C.S.E. examinations, or in a combination of both. (136)

The following table enables a comparison to be made between the percentages of the fifth form entered for various numbers of subjects in the C.S.E. and the G.C.E. before and after unstreaming commenced.

<sup>136.</sup> e.g. two 'O' level subjects and six C.S.E. subjects or one 'O' level subject and seven C.S.E. subjects, with no attempt being made to categorise pupils as being G.C.E. or C.S.E. 'types'. See Table 37 in Appendix i for precise figures relating to each annual intake.

#### CERTIFICATE OF SECONDARY EDUCATION - THE RESULTS

After streaming was abandoned, there was a substantial increase in the numbers of pupils passing various numbers of subjects in the Certificate of Secondary Education examination, compared with the previous period, the largest numerical increases being associated with five, six, seven and eight subjects and the least with two and three subjects. (138)

	Numbers of pupils passin C.S.E. examinations	
	1958-61	1962-65
8 subjects		26
7 subjects	5	34
6 subjects	33	60
5 subjects	41	77
4 subjects	54	74
3 subjects	72	85
2 subjects	59	75
1 subject	60	83
O subjects (entered)	15	4
	339	518

A chi-squared test applied to the following data produced a very significant chi-square of 25.50.

Observed frequencies

	Numbers of passes				
Years	0	1, 2 or 3	4 or more	Total	
1958-61	15	191	133	339	
1962-65	4	243	271	518	
Totals	19	434	404	857	

Expected frequencies

	Numbers	of pass	es
0	1, 2 or 3	4 or more	Total
7	172	160	339
12	262	244	518
19	434	404	857

<sup>138.</sup> See Table 38 in Appendix i for precise figures on an annual basis.

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	Numbers of pupils passing C.S.E. examinations		
	<u> 1958–61</u>	1962-65	
8 subjects		26	
7 subjects	5	34	
6 subjects	33	60	
5 subjects	41	77	
4 subjects	54	74	
3 subjects	72	85	
2 subjects	59	75	
1 subject	60	83	
O subjects (entered)	15	4	
	339	518	

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	Numbers	of pass	es
0	1, 2 or 3	4 or more	Total
7	172	160	339
12	262	244	518
19	434	404	857

<sup>138.</sup> See Table 38 in Appendix i for precise figures on an annual basis.

This result indicates that unstreaming was accompanied by a tendency for fewer pupils to gain no passes and more pupils to gain four or more passes in the Certificate of Secondary Education compared with the earlier period, confirming the tendency noted in the earlier table. There is no indication that the tendency for more pupils to gain passes in one, two and three subjects in the period after streaming was abandoned was statistically significant.

The chi-square value obtained is more significant than that obtained in connection with the corresponding analysis relating to General Certificate of Education examination results, (139) but less significant than that obtained in the case of Certificate of Secondary Education entries. (140)

A more detailed analysis carried out on the basis of the numbers of pupils entered for and passing in 0, 1, 2, 3, 4, 5, 6, 7 or more subjects produced a chi-square of 37.12 which is significant well beyond the 1% level of 18.475 associated with seven degrees of freedom. (141) The most substantial elements contributing to this result are those relating to the numbers of pupils gaining no passes and seven or more passes, indicating a significant tendency in the period after the adoption of unstreaming, for pupils not to fail completely in Certificate of Secondary Education examinations and to gain seven or more passes in greater numbers than in the earlier period.

All these results indicate that there was a greater change in the style of both the Certificate of Secondary Education examination entries and results after streaming was abandoned than there was in the style of the General Certificate of Education entries and results.

The following table shows the number of pupils gaining one pass or more in the Certificate of Secondary Education examinations in each of the

<sup>139.</sup> The value was only 0.47 for the G.C.E. results - not significant.

<sup>140.</sup> The value for C.S.E. entries was 100.56 - highly significant.

<sup>141.</sup> The corresponding value for the analysis of G.C.E. results was 14.75 which is less significant.

years 1958-61<sup>(142)</sup> and indicates, for instance, how over the four year period between 1961 and 1965, the numbers of pupils passing in one or more subjects virtually doubled.

The following table indicates how much greater was the increase in the numbers of pupils passing in one or more subjects in the Certificate of Secondary Education examinations after streaming was abandoned than was the increase in numbers of pupils passing in one or more General Certificate of Education examination subjects.

		<u> 1958-61</u>	<u> 1962<b>-</b>65</u>	<u>Differences</u>
One pass or more	(G.C.E.)	268	387	119
One pass or more	(C.S.E.)	324	514	190
Differences		56	127	•

More revealing than the actual numbers of pupils gaining various numbers of passes are the percentages of the original intakes who gained various numbers of passes. (143) The first thing to be noted is the increase in the proportion of the total intake which, after streaming was abandoned, successfully passed Certificate of Secondary Education examinations. This is seen in the following table which shows the percentage of the annual intake in the years 1958-61 gaining one or more passes.

Years	1958	1959	1960	1961	1962	1963	1964	1965	Totals
%	18.4	26.4	31.4	32.4	46.0	46.9	57•9	56.9	38.2

The following table enables a comparison to be of the percentages of the original intake gaining various numbers of passes in the periods before and after streaming was abandoned.

<sup>142.</sup> Note that only grades 1-4 inclusive are regarded as constituting passes.

<sup>143.</sup> See Table 39 in Appendix i for precise figures relating to each annual intake.

# Percentages of intake gaining various numbers of passes

	1958-61	<u> 1962<b>-</b>65</u>	Differences
8 subjects		2.6	2.6
7 subjects	0.4	3.4	3.0
6 subjects	2.7	6.1	3.4
5 subjects	3.4	7.8	4.4
4 subjects	4.5	7•5	3.0
3 subjects	6.0	8.6	2.6
2 subjects	4.9	7.6	2.7
1 subject	5.0	8.4	3.4
O subjects (entered)	1.2	0.4	- 0.8
O subjects (not entered)	71.8	47.4	- 24.4
(not entered)	100.0	100.0	

If the figures in this table are compared with those relating to the entry in the previous section (144) it is seen how, in the period before streaming commenced, the percentages of the intake entered for five, six, seven and eight subjects are greater than the percentages of the intake passing in five, six, seven and eight subjects. In the period 1962-65, only the percentages entered for seven and eight subjects are greater than the percentages gaining seven and eight subjects. This indicates a much improved performance after streaming was abandoned in the case of pupils entered for larger numbers of subjects in the sense that they were more likely to pass all, or almost all, the subjects for which they had been entered.

A comparison of the figures in the first two columns in the table above shows how, in the period 1962-65, the percentage of the intake passing various numbers of subjects was greater in every case than previously. Also to be noted is the fact that the largest increase in a particular percentage

<sup>144.</sup> See page 111 in Section ix.

is that associated with seven subjects, the proportion of which increased more than eightfold after unstreaming. (145)

If the figures in each of the columns in the last table are added together vertically, the percentage of the intake passing in x or more subjects, in the two periods, can readily be deduced and are to be seen in the following table alongside corresponding figures relating to General Certificate of Education passes.

	195	<u>8-61</u>	1962	2 <b>-</b> 65
	C.S.E.	G.C.E.	C.S.E.	G.C.E.
8 subjects or more		0.4	2.6	1.6
7 subjects or more	0.4	1.1	6.0	4.1
6 subjects or more	3.1	2.4	12.1	7.3
5 subjects or more	6.5	4.5	19.9	11.7
4 subjects or more	11.0	7•9	27.4	16.7
3 subjects or more	17.0	11.9	36.0	22.3
2 subjects or more	21.9	15.5	43.6	29.4
l subject or more	26.9	22.3	52.0	39.2

It can be seen how:

- 1. In the period 1962-65, the percentages relating to the C.S.E. examinations are larger than those relating to the G.C.E. examinations, indicating that after the abandonment of streaming, a larger proportion of the entry was successful in passing C.S.E. subjects than G.C.E. subjects.
- 2. In the period 1958-61, only in the case of seven and eight subjects, were the percentages of the intake passing in G.C.E. examinations greater than those passing in the corresponding number of C.S.E. subjects.
- 3. In the period 1962-65, the percentage differences between the proportions of the intake passing in various numbers of C.S.E. subjects and the same number of G.C.E. subjects was much greater than in the period 1958-61 indicating that, after the abandonment of streaing, a larger proportion of the entry was successful in passing C.S.E. subjects than G.C.E. subjects.

<sup>145.</sup> Excluding eight subjects in which no passes were gained in the earlier period. The largest increase, after unstreaming, in G.C.E. passes was also found to be associated with seven subjects.

4. In both periods, the percentage passing in one or more C.S.E. subjects is greater than the percentage passing in one or more G.C.E. subjects, indicating that, over the whole of the eight year period, the principal examination as defined by the greater numbers of pupils passing, was the C.S.E. in spite of the fact that in the period 1958-61, the percentage of the intake entered for '0' level examinations was slightly greater than the percentage entered for C.S.E. examinations. (146)

A similar comparison between the percentage of the <u>fifth form</u> passing in various numbers of subjects in the Certificate of Secondary Education and the General Certificate of Education shows that:

- 1. In the period 1958-61, a greater proportion of the fifth form was successful in passing C.S.E. subjects than G.C.E. subjects, except in one and seven subjects.
- 2. In the period 1962-65, only in the case of pupils passing in one G.C.E. subject was the proportion of the fifth form greater than the proportion passing in one C.S.E. subject. (147)

	195	<u>8-61</u>	1962	2 <u>-65</u>	
	C.S.E.	G.C.E.	C.S.E.	$\underline{G.C.E}$ .	
9 subjects or more		0.4		0.7	
8 subjects		0.4	4.8	2.2	
7 subjects	1.1	2.0	6.3	4.6	
6 subjects	7.2	3•5	11.1	5•9	
5 subjects	8.9	5.4	14.3	8.0	
4 subjects	11.8	8.9	13.7	9.1	
3 subjects	15.7	10.5	15.8	10.2	
2 subjects	12.9	9.4	13.9	13.0	
1 subject	13.1	17.8	15.4	18.0	
O subjects (entered)	3.3	17.8	0.7	10.8	
O subjects	26.0	24.0	4.0	17.4	
(not entered)	100.0	100.0	100.0	100.0	

<sup>146. 28.8%</sup> compared with 28.2%. In the period 1962-65 the percentage is 45.3% (G.C.E.) compared with 52.6% (C.S.E.)

<sup>147.</sup> This was found to be the case when the percentage of the original intake passing in various numbers of subjects was examined. 9.8% of the intake, in the period 1962-65, gained 1 G.C.E. pass compared with 8.4% gaining one C.S.E. pass. See Table 40 in Appendix i for precise figures relating to each annual intake.

When presented cumulatively these results indicate that well over ninety per cent of the fifth form, during the period 1962-65, passed in one or more subjects in the Certificate of Secondary Education compared with just over seventy per cent who passed in '0' level subjects.

	1958-61	<u> 1962<b>-</b>65</u>
1 or more subjects (G.C.E.)	58.2	71.8
1 or more subjects (C.S.E.)	70.7	95•3

If, in addition to considering the numbers of pupils who were successful in Certificate of Secondary Education examinations, the total number of subject passes gained is considered, the following table results.

Average number of passes per pupil entered for the C.S.E.

Year	1958	1959	1960	1961	1962	1963	1964	1965	Totals
Passes	175	262	308	303	493	363	535	587	3026
Pupils	64	96	96	83	122	99	144	153	857
Average	2.7	2.7	3.2	3.7	4.0	3.7	3.7	3.8	3.5

Considering the two four-year periods, before and after unstreaming, separately, shows that the average number of subject passes per pupil in 1962-65 was 0.7 of a pass higher than in the previous period.

	1958-61	<u> 1962-65</u>
Total number of passes	1048	1978
Total number of pupils	339	518
Average - passes per pupil	3.1	3.8

The following table shows the numbers of subject passes expressed as a percentage of subject entries.

Yea <b>r</b>	1958	1959	1960	1961	1962	1963	1964	1965	Totals
Passes	175	262	308	303	493	363	535	587	3026
Entries	272	<b>3</b> 66	390	349	573	431	615	713	3709
%	64.3	71.6	79.0	86.8	86.0	84.2	87.0	82.3	81.6

Although a general improvement can be seen from the beginning of the whole period 1958-65, the greater improvement in the period following the abandonment of streaming is apparent when the two periods are considered separately. (148)

The quality of the passes in the Certificate of Secondary Education as indicated by the average grade appear in the following table.

Average	grade	per	subject	entry
	()	~	,	, <sub>1</sub>

Year	1958	1959	1960	1961	1962	1963	1964	1965	Totals
Grades	1115	1450	1327	1128	1846	1459	1873	2466	12,664
Entries	<b>2</b> 72	366	390	349	573	431	615	713	3,709
Average	4.1	4.0	3.4	3.2	<b>3.</b> 2	3.4	3.0	3.5	3.4

A separate calculation relating to the periods prior to and after the onset of unstreaming shows an improvement in the quality of the average grade amounting to 0.3 of a grade during the period 1962-65. (149)

Another statistic worthy of consideration is that which shows the number of pupils who achieved a pass in every subject for which they were entered. (150)

During the period 1958-61, an average of 36 pupils per year achieved a pass in every subject for which they had been entered compared with an average of 88 pupils in the period 1962-65. This improvement is seen to occur in connection with all numbers of subjects, although as might be

<sup>148. 84.8%</sup> in the period 1962-65 compared with 76.1% in the period 1958-61.

<sup>149. 3.6</sup> was the average grade during the period 1958-61 compared with 3.3 during the period 1962-65.

<sup>150.</sup> See Table 41 in Appendix i for a detailed analysis relating to each year.

expected, it is greater in relation to some than to others. (151) A chisquare test applied to the following data produced a very significant value
of 52.06 signifying a tendency for unstreaming to be accompanied by an
increase in the numbers of pupils passing in all subjects for which they
had been entered by comparison with the earlier period. (152)

Observed frequencies

Years	Did	Did not	Totals
1958-61	145	194	339
1962-65	351	167	518
Totals	496	361	857

Expected frequencies

Did	Did not	Totals
196	143	339
300	218	518
496	361	857

The last conclusion is confirmed in the following figures which express the number of pupils who achieved a pass in every subject for which they had been entered as a percentage of the numbers of pupils entered for that number of subjects. (153)

	1958-61	<u> 1962–65</u>	Differences
8 subjects		38.2	38.2
7 subjects	20.0	2 <b>9.</b> 5	9•5
6 subjects	28.8	49.1	20.3
5 subjects	23.1	69.8	46.7
4 subjects	31.5	76.8	45.3
3 subjects	63.6	87.3	23.7
2 subjects	63.4	96.7	33.3
1 subject	81.4	98.6	17.2

<sup>151.</sup> The probability of passing one subject for which one is entered is obviously greater than that of passing two subjects for which one is entered and so on.

<sup>152.</sup> The chi-squared test applied to the same analysis carried out in relation to 'O' level passes produced a chi-square of 13.38 which was significant, but not so highly significant as the one relating to C.S.E. passes.

<sup>153.</sup> See Table 42 in Appendix i for detailed figures relating to each year.

It can be seen that, with the exception of seven subjects, in the period 1962-65, the percentages in this table increase as one moves down the table by contrast with what was seen to be the case with the 'O' level results. (154) This implies, for instance, that it was more difficult, after unstreaming, for a pupil to pass seven subjects than it was to pass eight subjects. In the period 1958-61 it also appeared harder to pass five subjects than to pass six subjects. Apart from these slight anomalies, the above figures show how unstreaming was accompanied by large increases in the percentages of pupils who passed in every subject for which they were entered. (155)

If, instead of asking how many pupils were successful in passing every subject for which they were entered in the Certificate of Secondary Education, the number of pupils gaining various numbers of passes, expressed cumulatively, are expressed as a number of pupils entered for the same numbers of subject, the following table results. (156)

	1958-61	1962-65	Differences
7 subjects or more	19.2	41.1	21.9
6 subjects or more	41.3	60.3	19.0
5 subjects or more	50.3	78.2	27.9
4 subjects or more	63.0	84.4	21.4
3 subjects or more	80.4	92.7	12.3
2 subjects or more	89.2	97.1	7•9
1 subject or more	95.6	99•2	<b>3.</b> 6

<sup>154.</sup> See page 75 in Section v in this Chapter. The difference lies in the fact that a very large percentage of the C.S.E. entry passes compared with the G.C.E. entry, e.g. 81.6% of the C.S.E. entry in the period 1958-61 were successful compared with only 57.1% of the G.C.E. entry in the period 1955-65.

<sup>155.</sup> Note, for instance, that only 42.8% of pupils entered for one or more C.S.E. subjects before the abandonment of streaming, passed in all subjects for which they were entered compared with 67.8% who did so after streaming was abandoned.

<sup>156.</sup> See Table 43 in Appendix i for annual figures.

These results imply, for instance, that in the period 1958-61, 63% of all pupils entered for four or more subjects passed in four or more subjects, compared with 84.4% who did so after streaming was abandoned. (157)

Finally it is interesting to note the average V.R.Q. of pupils who gained various numbers of passes in the Certificate of Secondary Education compared with those who gained corresponding numbers of passes at '0' level, in the years 1961 and 1965. These are seen in the following table.

	<u>C.</u>	5.E.	<u>G.</u> 0	<u>.E</u> .
	1961	1965	<u> 1961</u>	<u> 1965</u>
7 subjects	112	102	124	116
6 subjects	108	104	119	116
5 subjects	109	103	121	115
4 subjects	109	105	119	114
3 subjects	111	106	119	113
2 subjects	112	106	118	112
1 subject	113	107	117	110

It should be noted that:

- 1. In 1961 the highest average V.R.Q. of pupils who were successful in C.S.E. examinations was 113 or four points lower than the lowest average V.R.Q. of pupils who were successful in G.C.E. examinations.
- 2. By 1965 the average V.R.Q.'s of pupils passing in C.S.E. and G.C.E. subjects were approximately seven points lower than they were previously.
- 3. By 1965 the highest average V.R.Q. of pupils passing C.S.E. examinations was still three points lower than the lowest average V.R.Q. of pupils passing G.C.E. subjects.

Apart, therefore, from a slight tendency for the average V.R.Q. of all pupils to be lower in 1965 than it was in 1961, (158) unstreaming appears to

<sup>157.</sup> The improvement in performance in relation to 3,4,5,6,and 7 C.S.E. subjects or more is greater than the corresponding improvement in performance, after the abandonment of streaming, in '0' level subjects. The C.S.E. results in 1 and 2 subjects or more are not, however, so greatly improved, after unstreaming, as are the '0' level results.

<sup>158.</sup> The difference in the average V.R.Q. of the total intake in 1965 and 1961 was one point. V.R.Q. 104 in 1961 compared with V.R.Q. 103 in 1965.

have genuinely reduced the average V.R.Q. of pupils passing in the various numbers of G.C.E. and C.S.E. subjects by approximately six points, as a consequence of more pupils of lower V.R.Q. staying at school longer and being entered for both examinations.

### PART THREE

CONCLUSIONS

#### CONCLUSIONS

#### General Certificate of Education - the entry

- 1. Although the system of parallel forms, within separate blocks, which was utilised in the period between the abandonment of rigid streaming and the adoption of complete non-streaming led to a marked increase in the proportions of the intakes entered for 'O' level examinations, it was not until the intakes that were completely, or almost completely, unstreamed on entry to the school reached the fifth form stage that highly significant increases in numbers of pupils entered for 'O' level became apparent.
- 2. Considering the period 1962-65, as a whole, it is apparent that the abandonment of streaming was accompanied by a significant change in the pattern of the 'O' level entry compared with the earlier period, 1955-61.

The chief characteristics were as follows:

- (a) a larger number of pupils were afforded the opportunity of sitting 'O' level examinations, so that by the time the 1965 intake, which was completely unstreamed for two years, reached the fifth form stage, well over 50% of all pupils were entered for 'O' level examinations compared with less than 30% who were entered from the 1961 intake, the last one to be rigidly streamed on entry to the school.
- (b) the change of style of the entry was associated particularly with entries in four subjects, five subjects and seven or more subjects, for which pupils were entered in significantly larger numbers than in the earlier period when the school was streamed. The most significant effect of non-streaming on the 'O' level entry was not, therefore the opening up of possibilities for pupils of very modest ability to be entered for one, two and three subjects, but relates to pupils of well above average ability.
- (c) the large increase in the proportions of the original intakes entered for 'O' level examinations, after streaming was abandoned, was not confined to pupils sitting for certain numbers of subjects but included all categories from one nine subjects inclusive. The most significant increases in the proportions of the intake entered for specific numbers of subjects were related to entries in four, five and six subjects, confirming the conclusion in (b) above that the chief effect of unstreaming on the 'O' level entry was to open up possibilities for pupils of above average ability to be entered for appreciable numbers of 'O' level subjects.
- (d) the slight increase, after streaming was abandoned, in the numbers of pupils who completed five years in the school and were not entered for 'O' level examinations at all. This was a consequence of the increase in the numbers of non-selective pupils of lesser ability remaining at school for five years, some of whom were entered for C.S.E. examinations only.

- (e) a slight decrease in the four year period 1962-65, in the average number of subject entries per pupil at '0' level compared with the seven year period 1955-61, when the school was streamed. This was a consequence of the opportunities for pupils to be entered for the alternative Certificate of Secondary Education examinations which became available shortly before streaming was abandoned.
- (f) the increase in the proportion of the original intake which, after streaming was abandoned, was entered for 'O' level examinations.

During the whole of the period 1955-61, when the school was streamed, and when a greater proportion of the original entry consisted of pupils of high V.R.Q., less than 17% of the total intake was entered for five or more 'O' level subjects. By the time the 1965 intake, the first to be completely unstreamed for two years, entered the fifth form, almost 30% of the original intake was entered for five or more subjects.

Taking into consideration the fact that all intakes have been 'creamed' of higher ability pupils because of the existence of the direct grant schools, these results imply that unstreaming led to a substantially greater proportion of the total intake being entered for 'a good G.C.E.' (five subjects or more) than would obtain in a typical tripartite area where approximately 20% of the pupil population would enter the grammar school, only a proportion of whom would be entered for five or more subjects.

- (g) although the abandonment of streaming led to larger numbers of non-selective pupils of lower ability completing the five year course, the proportion of the fifth form which, in the period 1962-65, were entered for '0' level subjects, increased by almost 7% to the point where by the time the 1965 intake entered the fifth form, almost 85% were entered for '0' level subjects.
- (h) the increase in the proportions of the fifth form entered for 'O' level examinations after streaming was abandoned, extended to all numbers of subjects with the exception of eight subjects and nine subjects. The most significant increases were in respect of pupils entered for four subjects and five subjects, confirming the conclusions in (b) and (c) that the increase in the size of the 'O' level entry was not confined to pupils entered for relatively small numbers of subjects.

# General Certificate of Education - the entry relating to Selective and Non-Selective pupils

1. Whilst the abandonment of streaming was not accompanied by any significant change in the pattern of the 'O' level subject entry relating to selective pupils, it was accompanied by an increase in the proportion of selective pupils in each intake which was, five years later, entered for 'O' level subjects.

This was a natural consequence of an increase in the numbers of selective pupils remaining at school for five years, and led to a situation where, by the time the 1965 intake reached the fifth form, nearly 90% of all selective pupils were entered for 'O' level examinations compared with just over 60% who were entered from the 1961 intake, the last one to be streamed, four years earlier.

The system of parallel forms within separate blocks did not lead to an appreciable increase in the number of selective pupils entered for 'O' level and it was not until the first completely unstreamed intake reached the fifth form, that the significant increase referred to, became apparent. This, taken in conjunction with the conclusions which follow, relating to non-selective pupils, suggests that a parallel form system in which all the selective pupils are originally placed in the same top block, does not provide significantly greater opportunities for selective pupils to be entered for 'O' level examinations than does a system of rigid streaming in which selective pupils are placed initially in the top forms.

- 2. The adoption of non-streaming was accompanied by an increase in the average number of subject entries made on behalf of selective pupils so that by the time the 1965 intake, which was completely unstreamed, reached the fifth form, an average entry of almost six subjects was being made on behalf of selective pupils compared with an entry of less than 4.5 subjects per pupil made on behalf of those in the 1961 intake, four years earlier.
- 3. The earlier system of rigid streaming was clearly a major influence in denying to large numbers of non-selective pupils the opportunity to pursue 'O' level work and to be entered for 'O' level examinations. The abandonment of streaming was accompanied by a significant change in the pattern of the 'O' level entry relating to non-selective pupils, the chief characteristics being that:
  - (a) in the period 1962-65, considered as a whole, a significant tendency was noted for non-selective pupils to be entered for four or more subjects in greater numbers and for fewer non-selective pupils to be entered for no subjects at all, than in the earlier period.
  - (b) the abandonment of streaming led, unlike the case of selective pupils to an immediate increase in the proportion of non-selective pupils in each intake who were entered for 'O' level examinations, leading to a situation where by the time the 1965 intake reached the fifth form stage, over 40% of all non-selective pupils were entered for 'O' level examinations compared with less than 12% who were entered from the 1961 intake, the last one to be streamed.

This increase commenced immediately streaming was abandoned and suggests that a system of parallel forms whithin a system of separate blocks is much more benefical to non-selective pupils, although not so highly beneficial as complete unstreaming, than is a system of rigid streaming.

- (c) the adoption of a parallel form system, within separate blocks immediately after the abandonment of streaming, led to an increase in the proportion of non-selective pupils entered for 'O' level examinations by comparison with the earlier period of rigid streaming. This increase was particularly significant in respect of pupils entered for three and four subjects.
- (d) the adoption of complete non-streaming, which followed the parallel form system, led to a significant increase in the numbers of non-selective pupils entered for all numbers of subjects from one to seven inclusive, by comparison with the earlier period when separate blocks of parallel forms were utilised.

These results confirm the earlier conclusion in (b) that parallel forms within a system of separate blocks, whilst more beneficial to non-selective pupils than a system of rigid streaming, are not so beneficial in providing greater opportunities for entry to 'O' level examinations as is a system of complete unstreaming in the early years.

- (e) not only did the abandonment of streaming lead to a significantly large increase in the numbers of non-selective pupils entered for 'O' level examinations, but resulted in more non-selective pupils than selective pupils being entered for 'O' level by the time the 1965 intake reached the fifth form stage, by comparison with the situation four years earlier, when the last streamed intake sat 'O' level and when three times as many selective pupils as non-selective were entered.
- (f) the abandonment of streaming not only led to more non-selective than selective pupils being entered for 'O' level examinations, but to a situation whereby almost 45% of the subject entries from the 1965 intake were made on behalf of non-selective pupils compared with only 25% made on behalf of non-selective pupils from the 1961 intake which was streamed.
- (g) there was an increase, after unstreaming, in the size of the average subject entry made on behalf of each non-selective pupil. Whilst not as substantial as that associated with the selective group, it was, by the time the 1965 intake reached the fifth form, exactly four subjects per pupil and indicates clearly that the larger numbers of non-selective pupils entered for '0' level examinations, as a consequence of unstreaming, were entered for at least as substantial a number of subjects as were the non-selective pupils prior to the abandonment of streaming and who were, generally speaking of relatively high V.R.Q.

#### Joint Matriculation Board and Associated Examining Board entries

- 1. In the period 1955-61, prior to the abandonment of streaming, the 'O' level examinations of the Northern Universities Joint Matriculation Board were utilised to a greater extent than those of the Associated Examining Board in so far as more pupils were entered and three-quarters of the total subject entries made were under the regulations of the Joint Matriculation Board. This implied that the average number of subject entries per pupil under the Joint Matriculation Board regulations exceeded considerably that associated with the Associated Examining Board.
- 2. During the period 1962-65, after streaming was abandoned, there was a tendency to utilise to a greater extent than previously the examinations of the Associated Examining Board, but this was a gradual process and it was not until the two intakes of 1964 and 1965, that were almost completely and completely unstreamed, respectively, reached the fifth form stage, that the Associated Examining Board entries constituted a major proportion of the total 'O' level entry and the average number of subject entries per pupil exceeded that made under the regulations of the Joint Matriculation Board.

### General Certificate of Education - the entry in relation to the form system

- 1. During the period 1955-61, when pupils were placed in streamed forms on entry to the school, those who eventually sat for 'O' level examinations came from a restricted number of first year forms. After streaming was abandoned, the number of first year forms containing pupils who eventually sat for 'O' level examinations increased until by 1965, when the first year entry was completely unstreamed, every first year form contained pupils who, five years later, sat for 'O' level examinations.
- 2. After streaming was abandoned there was a substantial increase in the proportion of each first year form that was eventually entered for 'O' level examinations, leading to a situation where, by 1965, an average of more than 50% of each unstreamed first year form eventually sat for 'O' level compared with an average of only 29% that did so from the restricted number of first year forms from which 'O' level candidates came in the 1961 intake, four years earlier.
- There was also a substantial increase in the average number of 'O' level subject entries subsequently made on behalf on pupils in unstreamed first year forms compared with the earlier period. The number of subject entries subsequently made on behalf of first year pupils in the completely unstreamed intake of 1965 was more than double the number made on behalf of the pupils in the 1961 intake.
- 4. The adoption of complete non-streaming, leading to the situation described in 1, 2 and 3 above, removed from the minds of staff and pupils the idea that there were certain forms which were different from the rest in so far as they contained no pupils who would eventually be found capable of taking 'O' level examinations. The effect of this on the morale of the staff and pupils was a powerful factor in ensuring the success of the experiment in non-streaming.

#### General Certificate of Education - the results

- Although the system of parallel forms, within separate blocks, which was adopted in the transition period between the abandonment of rigid streaming and the adoption of complete non-streaming led to a substantial increase in the numbers of pupils who were successful at 'O' level, when the 1964 and 1965 intakes, which were almost completely and completely unstreamed, respectively, reached the fifth form stage, more highly significant increases in numbers of pupils who were successful became apparent.
- 2. Comparing the intakes for the period 1962-65 with those of the earlier period 1955-61, it is apparent that the abandonment of streaming produced a significant change in the pattern of the '0' level results. The chief characteristics of this change were as follows:
  - (a) In the period 1962-65, there was a significant alteration in the general style of the 'O' level results, associated particularly with a tendency for pupils to be more successful in gaining four passes or more and to avoid leaving school with no passes to their credit compared with the earlier period.

    A tendency for pupils to be more successful in gaining passes in 1, 2 and 3 subjects, after streaming was abandoned, whilst not so significant, is also apparent.
  - (b) The abandonment of streaming led to larger numbers of pupils being successful at 'O' level, so that by the time the first intake to be completely unstreamed for two years reached the fifth form stage, almost 50% of the pupils in that intake were successful at 'O' level compared with less than 25% who were successful from the 1961 intake, the last one to be rigidly streamed. Thus, within a period of four years, the proportion of the annual intake successful at 'O' level more than doubled.

This implied that, after streaming was abandoned, the chances of a pupil, on entry to the school, gaining some success at 'O' level, five years later, were more than twice those of pupils who, in the earlier period, had been initially placed in streamed forms.

- (c) The improvement in performance at '0' level in the period 1962-65 was an all-round one and was not confined to relatively small numbers of passes obtained by non-selective pupils who previously did not enter the fifth form. That is to say, the percentages of the original intakes gaining passes in 1, 2, 3, 4, 5, 6, 7, 8 and 9 subjects all increased after streaming was abandoned.
- (d) The numbers of pupils entered for 1, 2 and 3 subjects and the percentage who were successful in passing the 1, 2 and 3 subjects for which they were entered increased appreciably during the period 1962-65, indicating an enhanced performance amongst those pupils of modest ability who, being less able than those entered for larger numbers of subjects, normally stand a higher chance of failing completely.

- (e) The more able pupils, whether designated selective or not, benefited at least as much, if not more than those of modest ability, as a consequence of unstreaming.

  For example, over the four year period 1961 to 1965, the percentage of the intake passing in five or more subjects rose more than fourfold from 3.5% to 14.6% and in six or more subjects almost six-fold from 1.6% to 9.4%. These increases, being more substantial than those pertaining to smaller numbers of subjects indicate the greater benefits accruing to the more able pupils.
- (f) A factor which tended to reduce the number of pupils who gained no passes at '0' level after the abandonment of streaming was the existence of the alternative Certificate of Secondary Education examinations for which less able pupils were able to be entered. In spite of this, a larger proportion of the fifth form were entered for '0' level examinations in the period 1962-65 than before and the existence of the alternative examination does not sufficiently explain the enhanced performance of pupils of modest ability who were entered for 1, 2 and 3 subjects at '0' level after streaming was abandoned.
- (g) The quality of the passes gained at '0' level improved in the period 1962-65, the average grade per pupil entered being almost a grade higher than in the earlier period. In fact, the average grade per pupil entered for '0' level during each of the four years after streaming was abandoned was higher than the average grade achieved in any of the previous seven years when the school was streamed. This achievement was all the more remarkable as it was achieved at a time when the number of pupils being entered for '0' level was increasing rapidly, the vast majority being non-selective pupils of slightly above average ability.
- (h) The '0' level entry was a much more realistic one in the period 1962-65 in the sense that the number of subjects passed, expressed as a percentage of the entries made, rose to a level where it was higher than the national average. The pass rate for the whole of the four year period 1962-65 was 64.3% compared with 52.4% in the period 1955-61 when the school was streamed.
- (i) Although the average number of subject entries per pupil fell from 5.0 subjects to 4.6 subjects, after streaming was abandoned, the average number of subject passes per pupil increased, over the same period, from 2.6 to 2.9 subjects, implying that individual pupils stood a better chance of success after 1961 than in the early period.
- (i) After streaming was abandoned, there was a considerable increase in the probability that pupils would pass in all 'O' level subjects for which they had been entered. The improvement was most noticeable in pupils entered for 7, 8 and 9 subjects and confirmed the more beneficial effects of non-streaming on the performance of the more able pupils. Nevertheless, the improvement was an all-round one, with the exception of pupils entered for 4 and 6 subjects, and led to an average of 20 pupils per year successfully passing all subjects for which they were entered in the period 1962-65, compared with 9 pupils per year who did so in the earlier period.

- (k) Considering the eleven-year period 1955-65, as a whole, pupils entered for 4, 5 and 6 subjects, found it more difficult to gain passes in all subjects for which they were entered than did those entered for other numbers of subjects. The abandonment of streaming did not appear to have any appreciable effect in improving the capacity of such pupils to pass in every subject for which they were entered.
- (1) In the period 1962-65, the proportion of the fifth form who were successful in passing various numbers of '0' level subjects increased in every case except that relating to pupils passing in three subjects, where there was a reduction, and in four subjects where the percentage remained constant. This was probably because the more able pupils were not achieving their potential in the period 1955-61, under a system of streaming, and more were gaining passes in 3 and 4 subjects and fewer in 5, 6, 7 and 8 subjects than should have done so. It was not that pupils after streaming was abandoned, were under-achieving in gaining 3 and 4 passes so much as pupils were under-achieving in the earlier period in respect of gaining larger numbers of passes.
- (m) Unstreaming was accompanied by a greatly increased expectation that pupils entering the fifth form would gain what is termed a good G.C.E.' in 5 or more subjects. This is clearly indicated in the fact that nearly 25% of the fifth form associated with the 1965 intake passed in 5 subjects or more compared with less than 10% of the fifth form associated with the 1961 intake, four years earlier.
  Unstreaming was also accompanied by an increased expectation that a pupil who entered the fifth form, would leave school with some '0' level passes to his credit.

# General Certificate of Education - the results relating to Selective and Non-Selective pupils

- 1. The abandonment of streaming opened up possibilities for non-selective pupils to succeed at 'O' level which were not possible in the earlier period when the school was rigidly streamed.
- 2. In the period 1962-65, both selective and non-selective pupils fared better at '0' level than in the earlier period when the school was streamed, as indicated by:
  - (a) The increase in the percentage of selective and non-selective pupils in each intake who were successful at '0' level. In the four-year period between the time when pupils from the 1961 and 1965 intakes sat '0' level examinations, the percentage of selective pupils who were successful rose from 54.7% to 82.7%. Over the same period the percentage of non-selective pupils who were successful increased from 7.6% to 33.3%, more than fourfold.

    Judged by this criteria, the abandonment of streaming was more beneficial to the non-selective group of pupils.
  - (b) The fact that there was not only an increase in the percentages of selective and non-selective pupils entered for 'O' level examinations but that a higher proportion of the increased entry was successful in gaining passes compared with the earlier period. In this respect the selective pupils fared better than did the non-selective pupils.
  - (c) The fact that both selective and non-selective pupils were more successful in passing the subjects for which they were entered than they were in the earlier period. The abandonment of streaming proved to be slightly more beneficial to the selective pupils in that they achieved a higher pass rate in relation to entries than did the non-selective group.
    - As the selective pupils, in the period 1955-61, did better in this respect than did the non-selective pupils, the gap between their performances widened somewhat after streaming was abandoned. This again implied that the selective pupils benefited more from the adoption of non-streaming than did the non-selective group.
  - (d) The fact that although the abandonment of streaming was accompanied by an increase in the average number of subject passes gained at 'O' level by both selective and non-selective pupils, it was the selective group that benefited most. Over the four year period 1961 to 1965, the average number of passes gained by selective pupils rose from 2.5 to 4.2 passes per pupil compared with an increase from 1.8 to 2.2 passes per pupil in the case of non-selective pupils.
  - (e) The fact that although the abandonment of streaming was accompanied by an improvement in the quality of the '0' level passes as indicated by the average grade for both selective and non-selective pupils, it was the selective group who benefited most. And as the selective pupils, in the period 1955-61, did

better than the non-selective pupils in this respect, the adoption of non-streaming resulted in a widening of the achievement gap between the two groups of pupils. Nevertheless, the achievements of the non-selective group, after streaming was abandoned, was such that the average grade achieved per subject was higher than that achieved by selective pupils in the period when the school was streamed.

- 3. Although there was no significant change in the pattern of the 'O' level entry relating to selective pupils in the period 1962-65, there was a significant change in the pattern of the 'O' level results relating to selective pupils.

  The chief characteristics of this change were as follows:
  - (a) the significant tendency for selective pupils to achieve greater success in passing 4 or more subjects and to avoid leaving school with no passes to their credit after streaming was abandoned.
  - (b) the performance of selective pupils in gaining larger numbers of 'O' level passes, after streaming was abandoned, was more significant than that of the non-selective pupils.
  - (c) the improvement in 'O' level results of selective pupils was more significant than the improvement in results that ensued for the fifth form group as a whole.
  - (d) a selective pupil was the more likely to gain passes in the subjects for which he was entered at any stage of the eleven year period 1955-65, whether the form of organisation was streamed or unstreamed, than was a non-selective pupil. The adoption of non-streaming increased this likelihood.
  - (e) the better performance of selective pupils compared with non-selective in the period 1962-65, is reflected in the fact that, although by the time the completely unstreamed 1965 intake reached the fifth form stage, more non-selective pupils than selective were successful at 'O' level, the total number of passes gained by selective pupils was still greater than the number gained by the larger number of non-selective pupils.
- 4. The abandonment of streaming was not only accompanied by a significant change in the pattern of the 'O' level entry relating to non-selective pupils but also in the pattern of the results.

  The chief characteristics of this were as follows:
  - (a) the change in the pattern of the 'O' level results of nonselective pupils was more significant than the change in the
    pattern relating to either selective pupils or the fifth
    form group as a whole. The most significant aspect of this
    change was the tendency for non-selective pupils to achieve
    better results in passing 1, 2 and 3 subjects and to avoid
    leaving school with no passes to their credit, compared with
    the earlier period.

- (b) an improvement in the capacity of non-selective pupils to gain larger numbers of 'O' level passes in the period 1962-65, although this was not as significant as that exhibited by the selective group of pupils.
- (c) a large increase in the numbers of non-selective pupils who were successful at 'O' level compared with the earlier period. This was reflected in the fact that five out of every six pupils who came from the 1955 intake and who were successful at 'O' level were selective pupils, compared with the fact that by the time the 1965 intake reached the fifth form stage, more non-selective pupils than selective were successful at 'O' level.

  The important thing to note is that this change did not commence until streaming was finally abandoned in 1961 when only 5% of the total intake gaining 'O' level passes were non-selective, compared with 18.4% who were selective. Four years later, when the 1965 intake reached the fifth form stage, 24% of the total intake gaining passes were non-selective compared with only 23% who were selective.
- (d) a large and significant increase in the number of passes achieved by non-selective pupils in the period 1962-65 by comparison with the increase in the number of passes achieved by the selective group. That is to say, the number of passes gained by non-selective pupils in the period after streaming was abandoned was proportionally much greater than the number gained by selective pupils.

  The extent of the increase is seen in the fact of the non-selective pupils from the 1961 intake obtaining between them 20.7% of all passes obtained in that year compared with the achievements of the non-selective pupils from the 1965 intake who, between them, obtained 38.5% of all subject passes for that year. This represents a doubling almost within a period of four years.
- 5. The most significant improvement in 'O' level performance in the period 1962-65 was in respect of non-selective pupils who entered the fifth form in greater numbers than formerly and who were much more likely, after streaming was abandoned, to leave school, having gained some success at 'O' level and very much more likely to leave with 1, 2 and 3 passes to their credit compared with the earlier period.
- 6. The benefits accruing to selective pupils entered for '0' level examinations in the period 1962-65 were statistically more significant than those accruing to non-selective pupils entered for examinations, by comparison with the earlier period, although the benefits accruing to both were substantial
- 7. The benefits accruing to the whole group of non-selective pupils who completed the fifth year, whether entered or not for 'O' level examinations, after streaming was abandoned, were more significant than those accruing to the whole group of selective pupils who completed the fifth year, whether entered for examinations or not.

8. Generally speaking, where an improvement in examination performance is observed, that is associated with the abandonment of streaming, it is the selective pupils of higher intellectual ability who benefit more than the non-selective pupils, even when the performance of the latter group is appreciable.

#### Joint Matriculation Board and Associated Examining Board results

1. The abandonment of streaming rendered it necesssary to examine certain fundamental questions concerning the relevance of previous teaching methods, syllabuses and examination procedures to the new situation and to find answers to some of these questions.

This led to the examinations of the Associated Examining Board being used in respect of the intakes for the period 1962-65 to a greater extent that previously because they were regarded as being more relevant to the teaching of certain subjects in the newly created situation.

Although not the only factor responsible, this led to improved results at 'O' level as pupils of average and above average ability were afforded opportunities of preparing for an examination that did not force them into an academic strait-jacket nor place the principal emphasis on memorisation of facts.

- 2. In the period 1962-65, pupils who were entered for Joint Matriculation Board examinations at 'O' level were no less successful than previously, but a change in the pattern of the total entry was characterised by fewer pupils being entered for and gaining passes in all categories, and more particularly in four or more subjects than in the earlier period.
- 3. The Joint Matriculation Board results, whilst not as good as those of the Associated Examining Board, in the period 1962-65, were no worse than they were in the earlier period and, in most respects, were slightly better than before.
- 4. In the period 1962-65, a significant tendency is observed for pupils to gain four or more passes in increased numbers under the regulations of the Associated Examining Board than in the earlier period.
- 5. In the period 1955-61, before streaming was abandoned, pupils entered for Associated Examining Board examinations were more likely to fail than those entered for Joint Matriculation Board examinations. In the period 1962-65, however, Associated Examining Board entrants were less likely to fail than they were in the earlier period and considerably less likely to fail than those entered for Joint Matriculation Board examinations in any period.
- 6. The results achieved under the Associated Examining Board regulations, after streaming was abandoned, as indicated by the number of pupils passing specific numbers of subjects expressed as a percentage of the numbers of pupils entered for the same number of subjects were better than those achieved in the earlier period under the regulations of either examining board.
- 7. The numbers of pupils entered for '0' level examinations under the regulations of the Joint Matriculation Board and who gained no passes at all rose after streaming was abandoned, in the period 1962-65, but fell significantly in the case of pupils entered for the Associated Examining Board examinations. Pupils entered for Joint Matriculation

Board examinations, after streaming was abandoned, were more likely, therefore, to fail completely than in the earlier period. The significant reduction in the percentage of the total entry who, after streaming was abandoned, gained no passes was, therefore, largely due to the Associated Examining Board entries.

- 8. In the period 1962-65, the Associated Examining Board results, as indicated by the number of pupils passing expressed as a percentage of the number of pupils entered for various numbers of subjects, expressed cumulatively, were considerably better than those of the Joint Matriculation Board except in the case of pupils passing in six or more subjects.
- 9. Although the numbers of pupils entered for Associated Examining Board and Joint Matriculation Board examinations were exactly the same in the period 1962-65 and the number of Associated Examining Board subject entries slightly less than half the total entries made during this period, the number of subject passes gained under the Associated Examining Board regulations represented well over 50% of the total passes gained.
- 10. The significant improvement in the Associated Examining Board results and the slight improvement in Joint Matriculation Board results noted during the period 1962-65, did not coincide precisely with the abandonment of streaming, but were seen to commence in relation to the 1960 and 1961 intakes when they reached the fifth form stage. This was, no doubt, a consequence of these two intakes being subject to a parallel form system within separate blocks, when they reached the fourth and fifth form stages, with opportunities of studying subjects of their own choice to 'O' level and C.S.E. standards, which were not available to any previous intake.
- 11. The pass rate (subject passes expressed as a percentage of subject entries) of pupils entered for Joint Matriculation Board examinations improved slightly after streaming was abandoned, whereas the pass rate of pupils entered for Associated Examining Board examinations improved considerably, by almost 25%, compared with the earlier period.
- 12. The quality of the passes obtained at 'O' level as indicated by the grades awarded, improved under both boards in the period 1962-65, after streaming was abandoned. The improvement was greatest, however, in the case of passes gained under the Associated Examining Board regulations.

### General Certificate of Education - the results in relation to the form system

- 1. The pupils who entered the school during the period 1955-61 and who, eventually, were successful at '0' level, came from a restricted number of first year forms. The abandonment of streaming in 1962, led to more first year forms containing pupils who were eventually successful in passing '0' level examinations. The adoption of complete non-streaming, in 1965, led to a situation in ehich every first and second year form contained pupils who were, later, successful at '0' level.
- 2. The adoption of non-streaming in the early years increased considerably the numbers of pupils in first and second year forms who were later successful in passing 'O' level examinations to the point where an average of almost 50% of each first year form passed at least one subject at 'O' level compared with an average of less than 25% of a restricted number of first year forms who gained some success from the 1961 streamed intake.
- 3. The adoption of non-streaming increased considerably the number of '0' level subject passes subsequently achieved by pupils in each of the unstreamed forms to the point where an average of over 44 subject passes were gained by pupils in each of the ten first year forms in the 1965 intake compared with an average of only 21 subject passes that were gained by pupils in only seven out of the ten forms in the 1961 intake, four years earlier. This represents an increase of well over 100% per form.
- 4. The occasion in which a top streamed form was taken out at an early stage in the first year (1963 intake) proved to be beneficial to the pupils in that form in respect of their success at 'O' level in a way that was greater than that associated with any other form during the whole of the eleven year period under investigation. It led especially to an improvement in the performance of pupils passing in six or more subjects and to an improvement in the subject pass rate in relation to subject entries, which was the highest of any year under investigation.
- 5. Taking out a top streamed form early in the first year, whilst greatly beneficial to all the pupils in that form, depressed the performance of pupils not placed in that form and did not, generally speaking, lead to as substantial an improvement in the overall '0' level results as obtained when the intakes that were almost completely and completely unstreamed on entry to the school (1964 and 1965 intakes) reached the fifth form stage.

#### Certificate of Secondary Education - the entry

1. Although opportunities to sit for an alternative examination to the General Certificate of Education were available for pupils in the 1958 and subsequent intakes, it was not until streaming was finally abandoned that full advantage was taken of this. The provision of an alternative examination was not, by itself, sufficient to ensure that maximum advantage would be taken of the opportunities to pursue courses that would lead to these examinations. So long as the school organisation suffered from the inflexibilities of rigid streaming, this could not take place.

This is clearly seen in the fact that after streaming was abandoned the numbers of pupils entered for Certificate of Secondary Education examinations rose substantially, so that over the four year period 1962-65, the numbers were almost twice as large as they had been over the previous four year period, during which time they remained fairly constant.

2. The greater opportunities afforded to pupils, after streaming was abandoned, to take Certificate of Secondary Education examinations arose, in part, from the introduction of an option system which enabled all pupils who remained at school for five years to prepare for and enter for eight subjects in either the C.S.E. or the G.C.E. or a combination of both.

This system did not coincide with the abandonment of streaming but was introduced four years earlier when the Certificate of Secondary Education examinations were first introduced. The mere introduction of an option system that theoretically provides greater opportunities does not, therefore, necessarily ensure this unless the overall form of organisation of work groups is such as to permit this to occur. An unstreamed form of organisation appears to be more likely to do this than a streamed one.

- 3. Considering the intakes for the period 1962-65 as a whole, it is apparent that the abandonment of streaming was accompanied by a significant change in the pattern of the Certificate of Secondary Education entry compared with the earlier period.

  The chief characteristics were as follows:
  - (a) a tendency for fewer pupils to be entered for no subjects at all and for more pupils to be entered for four or more subjects than in the earlier period. Most significant of all was the increase in numbers of entries in seven and eight subjects made on behalf of non-selective pupils who previously would not have entered the fifth form. Appreciable, though not so significant, was the tendency for more pupils to be entered for one, two and three subjects, there being no increase at all in the numbers entered for five and six subjects.
  - (b) over the period 1962-65, the proportion of the total intake entered for examinations almost doubled compared with the previous four year period 1958-61, rising from an average of 28.2% to 57.3%.

- (c) the abandonment of streaming was accompanied by a greater increase in the percentages of the total intake entered for C.S.E. subjects than was entered for G.C.E. subjects, in every instance except four, five and six subject entries.
- (d) after streaming was abandoned, the average number of Certificate of Secondary Education subject entries rose significantly.
- (e) in the four year period prior to the abandonment of streaming, a greater proportion of the fifth form was entered for G.C.E. subjects than for C.S.E. subjects. In the four year period, 1962-65, after streaming was abandoned, the situation was reversed, although the percentages of the fifth form entered for G.C.E. and C.S.E. subjects respectively, increased.
- (f) in the period 1962-65, the percentage of the fifth form entered for specific numbers of C.S.E. subjects was, in every instance, from one to eight subjects inclusive, greater than the percentage entered for the same number of G.C.E. subjects. Prior to the abandonment of streaming this had been the case in 3, 4, 5 and 6 subject entries only.
- (g) a larger proportion of the increased numbers of pupils who remained at school for five years as a consequence of unstreaming were Certificate of Secondary Education entrants than were General Certificate of Education entrants.

#### Certificate of Secondary Education - the results

- 1. Comparing the intakes for the period 1962-65 with those of the earlier four year period 1958-61, it is apparent that the abandonment of streaming was accompanied by a significant change in the pattern of the Certificate of Secondary Education results.

  The chief characteristics of this change were as follows:
  - (a) a significant tendency for fewer pupils to gain no passes and for more to gain four or more passes, the most substantial increase appearing in relation to pupils gaining 5, 6, 7 and 8 subject passes.
  - (b) an appreciable, though not so significant, an increase in numbers of pupils passing in 1, 2 and 3 subjects.
  - (c) an increase in the total number of pupils and in the percentage of the total intake passing in C.S.E. subjects after streaming was abandoned, leading to a doubling almost of both these figures in the period 1962-65 compared with the earlier period. An average of 27% of the total intake was successful in gaining one pass or more prior to 1962 compared with 52.2% in the period after this.
  - (d) a large and significant increase in the number of pupils who passed in every subject for which they were entered, leading to a situation where 67.8% of pupils in the period 1962-65 passed in every subject compared with 42.8% who did so in the period 1958-61.
  - (e) a highly significant increase in the probability that pupils entered for larger numbers of subjects would be more likely to pass all or almost all the subjects for which they were entered. After streaming was abandoned, the percentage of pupils passing in seven subjects increased more than eightfold.
  - (f) an increase in the average number of passes gained by each pupil entered, rising from 3.1 subject passes in the period 1958-61 to 3.8 subject passes in the period 1962-65.
  - (g) a significant improvement in the subject pass rate (subject passes as a percentage of subject entries), the average pass rate being almost 9% higher in the period 1962-65 than in the earlier period. Although a general improvement is to be seen from the time the 1958 intake sat for C.S.E. examinations, it did not become significant until streaming was abandoned.
  - (h) an improvement in the quality of the passes gained as indicated by the average grade achieved per subject entry. In the period after streaming was abandoned, the average performance improved by a factor of 0.3 of a grade compared with the earlier period.

- 2. The degree of significance of the change in the pattern of the Certificate of Education results in the period 1962-65 relative to the period 1958-61, is greater than that relating to the change in the pattern of the General Certificate of Education results, indicating that unstreaming had a greater effect both on the pattern of the C.S.E. entry and results than it had on those of the G.C.E. results.
- 3. Throughout the whole of the period 1958-65, before and after streaming was abandoned, the percentage of the intake passing in one or more Certificate of Education subjects was larger than the percentage passing in one or more General Certificate of Education subjects.

In the period 1962-65, however, the increase in the numbers passing one or more Certificate of Secondary Education subjects was greater than the increase in the numbers passing one or more General Certificate of Education subjects, leading to a situation in which 50% of the total intake gained passes in Certificate of Secondary Education examinations compared with 40% who gained passes in General Certificate of Education examinations.

- 4. A substantial proportion of the fifth form were successful in gaining passes in Certificate of Education subjects in the period 1962-65 compared with the proportion of the fifth form who were successful in passing 'O' level subjects. After streaming was abandoned, well over 90% of the fifth form gained passes in Certificate of Secondary Education subjects compared with just over 70% who gained passes at 'O' level.
- 5. The increase in the proportion of the fifth form gaining passes in the Certificate of Secondary Education, after streaming was abandoned, was larger than the increase in the proportion gaining 'O' level passes, In the period 1958-61, 70.7% and 58.2% of the fifth form were successful in passing Certificate of Secondary Education and 'O' level subjects, respectively. In the period 1962-65, the proportions rose to 95.3% and 71.8%, increases of 24.6% and 13.6% respectively.
- 6. The abandonment of streaming enabled pupils of lower V.R.Q. to be successful in passing both C.S.E. and G.C.E. examinations than would, otherwise, have done so had the form of organisation remained as it was prior to 1962.

### PART FOUR

### THE COMPLETION OF THE FIVE YEAR

### COURSE OF STUDIES

- 1. All pupils
- 2. Selective and non-selective pupils
- 3. The form system

#### THE COMPLETION OF THE FIVE-YEAR COURSE OF STUDIES

Until 1962 the law relating to school attendance permitted pupils who attained the age of fifteen years to leave school at the end of the term in which their fifteenth birthday occurred. Prior to September, 1963, therefore, when the new law came into effect, it was possible for pupils to leave school at three different times of the year - at the end of the Autumn, Spring and Summer Terms. Pupils who did so, on attaining the age of fifteen years, were usually referred to as Christmas, Easter and Summer leavers.

After 1963, the law did not permit pupils to leave school at the end of the Autumn Term and school leaving was restricted to the end of the Spring and Summer Terms. Those pupils who attained the age of fifteen years between the 2nd September and the 1st February, inclusive, were entitled to leave at the end of the Spring Term and those who attained the age of fifteen years between the 2nd February and the 1st September, inclusive, were entitled to leave at the end of the Summer Term.

It was customary to regard such pupils who did not enter the fifth form as 'early leavers' in so far as they did not complete the full five-year course of studies leading to external examinations and did not usually leave school with any paper qualifications to their credit. (159)

A further amendment to the law in 1969 under the terms of The Family Law Reform Act provided that a person attains a particular age at the commencement of the relevant anniversary of the date of his birth and made obsolete the previous legal ruling that a given age is attained on the day preceding the birthday. This implied that from the 1st January, 1970 a child was deemed to be of compulsory school age until the end of the Spring

<sup>159.</sup> Theoretically it would be possible for pupils to sit '0' level examinations at the end of their fourth year but it is not usual to find 'early leavers' doing so. Some schools have issued their own internal school leaving certificates to 'early leavers' but this was not the case at The Woodlands School.

Term if his fifteenth birthday falls on or between the 1st September and the 31st January and a child was deemed to be of compulsory age until the end of the Summer Term if his fifteenth birthday falls on or between the 1st February and the 31st August.

The analysis which follows is conducted entirely on the basis of those pupils who entered the fifth form and completed five years in the school. No attempt has been made to differentiate between those who left school at the end of the Autumn, Spring or Summer Terms in their fourth year and all are regarded an 'early leavers'. In those few cases where a pupil entered the fifth form and did not complete the course he is regarded for purposes of this analysis as being an 'early leaver'.

The enquiry in this chapter has been carried out in order to ascertain whether the abolition of streaming was accompanied by any significant change in the numbers of pupils completing the five-year course of studies and, if so, whether there was any change in the relative proportions of selective and non-selective pupils doing so after streaming was abandoned.

#### ALL PUPILS

In an attempt to discover whether any significant difference is to be observed in the overall pattern of the numbers of pupils completing the five-year course in the periods before and after streaming was abandoned, a goodness-of-fit test was applied to the following data. (160)

Observed frequencies

	Number of pupils							
Year	Staying	Not Staying	Total					
1955-61	769	1275	2044					
1962-65	539	447	986					
Total	1308	1722	3030					

Expected frequencies

Numb	er of pupil	.s
Staying	Not Staying	Total
882	1162	2044
426	560	986
1308	<b>17</b> 22	3030

<sup>160.</sup> See Table 49 in Appendix i for precise numbers relating to each annual intake.

A chi-square of 79.1 resulted from this analysis which for the one degree of freedom associated with this table is highly significant and indicates a significant change in the 'staying-on' pattern in the period after streaming was abandoned.

A consideration of the total number of pupils who remained at school for five years expressed as a percentage of the total number who would have done so had there been no 'early leavers', over the whole of the period with which the investigation is concerned, indicates that during the period associated with the 1955-61 intakes, the figure remained virtually constant. During this seven-year period the difference between the maximum and minimum annual percentages of those remaining at school was never more than 3.3% with no single annual figure exceeding 40%. This, together with the upward trend which commenced with the 1962 intake when arrangements were first made to move away from rigid streaming by banding the pupils in a system of parallel forms, is clearly seen in the following table.

Numbers of pupils staying for five years as a percentage of numbers in original entry

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Stayin	g 104	104	102	119	131	113	96	122	100	145	175	1308
Intake	283	274	277	326	329	299	256	263	209	247	267	3030
%	36.7	38.0	<b>36.</b> 8	<b>36.</b> 5	39.8	37.8	37.5	46.4	47.8	58.7	64.4	43.2

The increased percentage of pupils entering the fifth form associated with the 1962 intake continued to the point where, within a period of four years, the percentage of each annual intake remaining at school for five years increased from less than 40% to well over 60%. (161)

A consideration of the whole of the two periods, before and after streaming was abandoned, shows that 37.6% of all pupils entering the school

<sup>161.</sup> This trend, although outside the scope of this study, continued with the 1966 and 1967 intakes to a value of just over 70%

in the period 1955-61 completed the five-year course compared with 54.7% doing so in the period 1962-65. It is, however, significant that the upward trend coincided precisely with the abandonment of streaming in 1962. (162)

It is important to enquire from what section of the ability range, as indicated by the V.R.Q., the increased proportions who stayed at school after 1961 came. Were they pupils of below-average, average or above-average ability? To answer this question the following table has been compiled and indicates the percentages of pupils in the various V.R.Q. ranges who, from each annual intake, completed five years in the school. (163)

Numbers of pupils completing the five-year course having V.R.Q.'s in various ranges as a percentage of the numbers in the original intakes having V.R.Q.'s in those ranges

V.R.Q.	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Over 130	92.9	100	100	100	0	25.0	66.7	100	66.7	66.7	100	84.4
116-130	75.0	70.5	75•9	83.8	80.6	77.1	69.4	65.5	76.5	89.4	84.4	76.6
100-115	24.5	31.6	25.5	37.4	47.2	56.3	46.1	55.6	61.0	72.6	76.6	49.5
85-99	3.1	3.1	10.1	10.2	16.4	11.8	12.3	25.8	18.0	28.6	43.8	15.8
Below 85	0	0	0	3.7	0	2.3	0	0	9.1	0	28.1	4.9
Totals	36.7	38.0	36.8	36.5	39.8	37.8	37.5	46.4	47.8	58.7	64.4	43.2

These figures should be looked at in conjunction with Table 49 in Appendix i showing the numbers of pupils completing the five-year course so as to understand, for instance, that the irregular pattern of the percentages relating to pupils in the V.R.Q. range over 130 arises from the relatively

<sup>162.</sup> By contrast with some of the results in Part Three where the effects did not become statistically significant immediately streaming was abandoned but only when complete non-streaming was adopted. See also the observations on the next page where the 'staying-on' rate for pupils with V.R.Q.'s over 115 did not increase significantly immediately streaming was ended in 1962.

<sup>163.</sup> See Table 49 in Appendix i for numbers of pupils in each annual intake who stayed for five years.

small numbers of pupils in this range entering the school. In the 1959 intake, for example, there were no pupils with V.R.Q.'s over 130 and never more than two pupils in any year, except 1955-57 inclusive, when a total of 25 pupils had V.R.Q.'s over 130. By contrast, over the entire eight-year period 1958-65, virtually half this number only had V.R.Q.'s over 130.

The percentage of pupils in the V.R.Q. range 116-130 who completed the five-year course is much more revealing, for although the numbers of such pupils diminished over the ll-year period because of smaller numbers entering the school (164) the percentage of the original intake remaining for five years and having V.R.Q.'s in this range increased to the point where from the combined 1964 and 1965 intakes, the latter completely unstreamed in the first two years, an average of almost 90% of the original entry completed the fifth year.

If, however, the four-year period following the abandonment of streaming is considered as a whole, the increase in the proportion of higher ability pupils in the V.R.Q. range 116-130 remaining at school does not appear to be so highly significant. This is what one would expect in view of the fact that the majority of these pupils were selective pupils who constituted the major portion of those pupils who, during the time the school was streamed, entered the fifth form. (165)

The most significant increases in the percentage of pupils completing the five-year course, after streaming was abandoned, is to be seen in the

<sup>63</sup> pupils in the 1955 entry and 38 in the 1965 entry. 164. 165.

The actual figures for the whole of the periods 1955-61 and 1962-65 for pupils in the V.R.Q. range over 115 are 76.6% and 78.4% respectively, representing an increase of less than 2%. On the other hand, a comparison between the figure for the last completely streamed intake (1961) and the first intake to be virtually unstreamed (1964) indicates an increase of 20% (69.4% to 89.4%). This results from the fact that, although the improvement in the 'staying-on' rate for all pupils, irrespective of V.R.Q. commenced with the abandonment of streaming in 1962, it did not commence to the same extent then as it did for those whose V.R.Q.'s fell below 115. As already indicated, this was, no doubt, a consequence of the majority of these pupils being 'selective' for whom a high staying-on rate had been achieved since the time the school opened and whose performance, in this respect, did not improve significantly until the banding or blocking system gave way to complete non-streaming.

case of those in the V.R.Q. range 100-115 and 85-99, the above and the below-average, respectively, the majority of whom would be designated non-selective.

Although the figures associated with each annual intake can be gleaned from the table above, the effect over the whole of the periods prior to and after streaming was ended are more clearly seen in the following table.

		total intake
	staying for	five years
<u>V.R.Q</u> .	1955-61	1962-65
Over 115	76.6	78.4
100-115	38.0	66.8
85-99	10.4	29.7
Below 85	1.2	11.2

It is to be seen how the percentage of those in the V.R.Q. range 100-115 remaining at school for five years increased after the abandonment of streaming slightly less than two-fold compared with an almost three-fold increase in the proportion of those in the V.R.Q. range 85-99 remaining at school. (166) Nevertheless, in spite of the larger proportional increase in the case of the below-average pupils (V.R.Q. 85-99) in the period after streaming was abandoned, it was still the case that twice the percentage of pupils originally in the V.R.Q. range 100-115 entered the fifth form compared with those in the V.R.Q. range 85-99. In short, the abandonment of streaming had an immediate effect that was proportionally of greater significance to the below-average pupils but which was not great enough to compensate for the fact that a higher proportion of above-average pupils than below-average pupils remained at school for five years prior to the cessation of streaming.

<sup>166.</sup> If a comparison is also made between the figures for the 1961 and 1965 intakes the increase in the case of pupils of V.R.Q. 85-99 is almost four-fold (12.3% compared with 43.8%) but only just under two-fold in the case of pupils of V.R.Q. 100-115 (46.1% compared with 76.6%). Looked at in this way, the abandonment of streaming was of much greater benefit to the below-average pupils than to those of above-average ability.

The figures relating to pupils in the range below V.R.Q. 85 are of interest, in spite of the fact that they relate to a total of only two pupils in the period 1955-61 and eleven in the period 1962-65, the latter of whom were engaged in working towards the Certificate of Secondary Education examinations. This would appear to indicate the possibility of some pupils, at least, who come within this lower V.R.Q. range being able to deal with examination work, provided that they have not been conditioned at an early stage of their school careers into believing themselves incapable of doing so. (167)

The following analysis shows that pupils of higher V.R.Q. (over 115) have, over the ll-year period in question, formed a progressively smaller proportion of those completing the five-year course, as would be expected from the decreasing numbers of such pupils entering the school. For example, of all pupils who from the 1955 intake completed the five-year course, 73.1% had V.R.Q.'s above 115, compared with only 23.3% of the fifth form from the 1965 intake having V.R.Q.'s above 115. (168)

Numbers of pupils completing the fifth year having V.R.Q.'s in various ranges as a percentage of the total number of pupils completing the fifth year

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
0ver 130	12.5	4.8	6.9	1.7	0	0.9	2.1	1.6	2.0	1.4	1.2	2.9
116-130	60.6	64.5	61.7	56.3	41.3	47.8	44.8	31.2	26.0	29.0	22.1	42.4
100 <b>-1</b> 15	25.0	28.8	24.5	31.1	45.0	39.8	42.7	53.3	61.0	58.6	55.2	43.5
85-99	1.9	1.9	6.9	10.1	13.7	10.6	10.4	13.9	9.0	11.0	16.3	10.2
Below 85	0	0	0	0.8	0	0.9	0	0	2.0	0	5.2	1.0
Totals	100	100	100	100	100	100	100	100	100	100	100	100.0

<sup>167.</sup> Of the eleven pupils referred to, ten obtained, between them, a total of 37 subject passes. Only one of the eleven pupils failed to gain any passes.

<sup>168.</sup> See the table on page 28 in Part Two for precise numbers of pupils entering the school each year and having V.R.Q.'s above 115.

These figures indicate how a larger proportion of those completing the fifth year have, over the ll-year period, come from the V.R.Q. ranges 110-115 (25.0% in 1955 rising to 55.2% in 1965) and 85-99 (1.9% in 1955 rising to 16.3% in 1965). These figures reflect to some extent the decrease in numbers of pupils of high V.R.Q. in the annual intakes, but even more so the tendency for those of lower V.R.Q. to remain at school longer once streaming had been ended. The following figures which relate to the whole of the two periods before and after streaming was ended, show clearly how, prior to 1962, the majority of pupils completing the five-year course came from the V.R.Q. range over 115. After streaming was ended in 1961, the proportion of all pupils completing five years in the school and having V.R.Q.'s over 115 fell sharply to just over one quarter of the total number staying for five years. This was not because a smaller proportion of those having V.R.Q.'s over 115 were staying for five years but because of the larger numbers of those with lower V.R.Q.'s who, after 1961, entered the fifth form. In the four-year period after streaming ended well over half the fifth form consisted of pupils with V.R.Q.'s between 100-115 whereas well over half the fifth form, in the seven-year period 1955-61 consisted of pupils with V.R.Q.'s over 115.

Numbers of pupils with V.R.Q.'s in various ranges completing the five-year course as a percentage of the total number completing the five-year course

<u>v.R.Q</u> .	1955-61	<u> 1962-65</u>
Over 115	57•3	28.2
100-115	34.2	56.8
85-99	8.2	13.0
Below 85	0.3	2.0
Total	100%	100%

In spite of the large increase in numbers of pupils of below-average ability who completed the five-year course after streaming was abandoned, it should be noted that, in both periods, 91.5% and 85% respectively of all

pupils in the fifth form had above-average V.R.Q.'s (100-130 plus). Judged by this criteria, therefore, the greatest effect of unstreaming was, undoubtedly, in relation to the slightly above-average ability group with V.R.Q.'s in the range 100-115.

#### SELECTIVE AND NON-SELECTIVE PUPILS

In the period when the school was streamed, all selective pupils were placed in one of the top three forms on entry where, generally speaking, they stayed for the rest of their school career. It was only to be expected, therefore, that these pupils who were afforded the opportunity of preparing for 'O' level examinations would be those who formed the nucleus of those remaining at school for five years during the period when the school was streamed. Conversely, it was only to be expected that the vast majority of non-selective pupils who were not regarded, for the most part during the period when the school was streamed, as being capable of pursuing examination courses, would not be strongly motivated to continue at school beyond the statutory leaving age. The consequence was that, from the intakes covering the period 1955-61, a depressingly small proportion of each annual intake entering the fifth form consisted of non-selective pupils as indicated in the following table.

Numbers of selective and non-selective pupils completing the fifth year as a percentage of the total intake

Year	<b>1</b> 955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
S	76	65	<b>6</b> 8	71	71	59	58	62	55	70	67	722
N-S	28	39	34	48	60	54	38	60	45	75	105	586
% (S)	26.9	23.7	24.5	21.8	21.6	19.7	22.7	23.6	26.3	28.3	25.1	23.8
%(N-S)	9.9	14.2	12.3	14.7	18.2	18.1	14.8	22.8	21.5	30.4	39.3	19.3

In an attempt to determine whether there was any change in the tendency for selective pupils to complete the five-year course as a consequence of unstreaming, a chi-square test was applied to the following data.

Observed frequencies

	Number of pupils						
Year	Staying	Not Staying	Total				
1955-61	468	133	601				
1962-65	254	61	315				
Total	722	194	916				

Expected frequencies

Number of pupils							
Staying	Not Staying	Total					
474	127	601					
248	67	315					
722	194	916					

A chi-square of 1.14 resulted which is not significant even at the 1% level, thus signifying no statistically significant change in the attitude of selective pupils towards completing the five-year course in the four-year period following the abandonment of streaming.

The proportion of the total annual intake entering the fifth form which has consisted of selective pupils has remained reasonably constant over the entire 11-year period as can be seen from the previous table. For instance, 36.8% of the streamed 1955 intake entered the fifth form of which 26.9% were selective pupils. Eleven years later, 64.4% of the unstreamed 1965 intake entered the fifth form of which 25.1% were selective pupils. In other words, the proportion of each annual intake completing five years in the school has increased over the years but the contribution towards this by selective pupils has remained fairly constant. Nevertheless, the abandonment of streaming was accompanied by a small positive effect on the tendency for selective pupils to complete the five-year course and this can be seen when the figures relating to the whole of the two periods before and after streaming ended are examined.

### Percentage of the annual intake staying at school for five years

	1955-61	<u> 1962-65</u>
Selective pupils	22.9	25.8
Non-selective pupils	14.7	28.9
Total	37.6%	54.7%

These figures, together with those in the earlier table, indicate that the most significant effect associated with the cessation of streaming relates to the group of non-selective pupils. In the four-year period after 1961, the percentage of each annual intake entering the fifth form which consisted of selective pupils rose by 3% to the position where all the selective pupils completing five years in the school represented one quarter of all pupils in the original intake. By comparison, over the same period, the percentage of each annual intake entering the fifth form which consisted of non-selective pupils virtually doubled, rising from 14.7% to 28.9%. In short, over the four-year period after streaming was abandoned, the larger proportion of the total intake who completed five years in the school were non-selective pupils whereas, prior to this, the larger proportion had consisted of selective pupils.

The effects of the ending of streaming are seen even more clearly when figures associated with the last streamed intake of 1961 are compared with those relating to the first completely unstreamed intake of 1965. (169)

<sup>169.</sup> The high proportion of non-selective pupils from the 1959 intake completing the fifth year results, no doubt, from the fact that this was an unusually large entry, the additional pupils consisting of non-selective pupils of above-average ability. The increase in the proportion of non-selective pupils completing five years from the 1960 entry probably resulted from the fact that a re-organisation of the streamed forms took place in 1962 so as to remove from the top three forms those pupils who, by this time, were not doing as well as they should. In some cases these were selective pupils whose places were taken from the third year onwards by non-selective pupils.

# Percentage of each annual intake staying at school for five years

	<u>1961</u>	<u> 1965</u>
Selective pupils	22.7	25.1
Non-selective pupils	14.8	39.3
Total	36.5%	64.4%

A chi-square test applied to the numbers of non-selective pupils completing and not completing the five-year course in the periods before and after streaming ended, using the following data, produced the highly significant chi-square of 105.2. This indicated beyond doubt that the ending of streaming was accompanied by a highly significant effect on the tendency for non-selective pupils to complete the five-year course of studies.

Observed frequencies

	Number of pupils								
Year	Staying	Not Staying	Total						
1955-61	301	1142	1443						
1962-65	285	386	671						
Total	586	1528	2114						

Expected frequencies

Number of pupils									
Staying	Not Staying	Total							
400	1043	1443							
186	485	671							
586	1528	2114							

Apart from any other considerations, it can be seen that almost as many non-selective pupils completed the five-year course during the four-year period following the abandonment of streaming as did so in the whole of the previous seven-year period when the school was streamed.

The effect of unstreaming on the non-selective group of pupils is seen more clearly if the figures are presented in such a manner as to show the proportions of each fifth form consisting of selective and non-selective pupils respectively.

# Numbers of selective and non-selective pupils completing the five-year course as a percentage of all pubils completing the five-year course

Year	1955	1956	1957	<b>1</b> 958	1959	1960	1961	1962	1963	1964	1965	Total
S	73.1	62.5	66.7	59•7	54.2	52.2	60.4	50.8	55.0	48.3	39.0	55.2
N-S	26.9	37.5	33.3	40.3	45.8	47.8	39.6	49.2	45.0	51.7	61.0	44.8

It can be seen how the fifth form resulting from the earliest of the streamed intakes (1955) contained almost three times as many selective pupils as non-selective pupils and that, whilst succeeding streamed intakes gave rise to fifth forms in which the ratio of selective to non-selective pupils was not as high as this, it was not until the entries of 1964 and 1965 which were almost unstreamed and completely unstreamed respectively, reached the fifth form stage that fifth forms emerged which contained more non-selective than selective pupils. It should be noted that although there was a noticeable increase in the proportion of the fifth form consisting of non-selective pupils immediately following the cessation of streaming in 1961, it was not until complete unstreaming commenced and the blocking system was superseded that the tendency became statistically highly significant. (170)

If the periods before and after streaming ended are considered as wholes the following table results and shows that the ending of streaming was accompanied by a change in the character of the fifth form in so far as non-selective pupils now formed the major proportion of those entering the fifth form. (171)

171. If, however, individual years are considered, non-selective pupils did not outnumber selective pupils until the 1964 entry reached the fifth form stage.

<sup>170.</sup> The increased percentage of non-selective pupils completing the fifth year associated with the 1962 entry should be seen against the figure of approximately 40% associated with the 1961 entry and indicates an increase of almost 10% as a result of adopting the blocking system in 1962. The three year's intakes 1958-60 are not to be regarded as typical and the larger numbers of non-selective pupils of above-average ability entering the school in those years resulted in a greater percentage of non-selective pupils completing the five-year course than would have been the case with a normal sized entry.

	1955-61	<u> 1962-65</u>
Selective pupils	60.9%	47.1%
Non-selective pupils	39.1	52.9
Total	100%	100%

If finally, the question is asked 'What effect did the abandonment of streaming have on the percentage of selective and non-selective pupils in the original intakes who subsequently stayed for five years?', the benefits accruing to both groups become apparent.

Numbers of selective pupils completing the five-year course as a percentage of all selective pupils in the original intake

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Stayin	g 76	65	68	71	71	59	58	62	55	70	67	722
Total	97	86	87	81	88	76	86	84	<b>7</b> 5	81	75	916
%	78.4	75.6	78.2	87.7	80.7	77.6	67.4	73.8	73.3	86.4	89.3	78.8

Although the percentage of selective pupils in the original intakes completing the five-year course did not vary significantly over the nine-year period 1955-63, the effect of the move to complete non-streaming that occurred with the 1964 and 1965 intakes, is most apparent and statistically very significant. This is particularly the case when it is remembered that, by this time, a large proportion of the selective pupils entering the school were of only slightly above-average ability and equivalent to non-selective pupils in the earlier period.

During the entire period 1955-61, when the school was streamed, 77.9% of all selective pupils entering the school remained for five years.

Between 1962-65 this figure rose by less than 3% to 80.6%. These figures, however, disguise the fact that the improvement associated with the cessation of streaming did not show itself until selective pupils from the 1964 intake, which was virtually unstreamed, reached the fifth form stage. A comparison between the 1964 and 1965 entries and the earlier intakes reveals, therefore, a more significant effect on the tendency for selective

pupils to complete the five-year course after complete non-streaming had been adopted, than is apparent from a study of the two periods when the school was streamed and not streamed considered separately.

The effect of the abolition of streaming on the non-selective group of pupils is slightly different from that on the selective group and very much more pronounced.

Numbers of non-selective pupils completing the five-year course as a percentage of all non-selective pupils in the original intake

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Stayin	ıg 28	39	34	48	60	54	38	60	45	75	105	586
Total	186	188	190	245	241	223	170	179	134	166	192	2114
%	15.1	20.7	17.9	19.6	24.9	24.2	22.4	33.5	33.6	45.2	54.7	27.7

From 1962 onwards a marked increase in the percentage of non-selective pupils completing the fifth year is to be seen, although, prior to this, there was some indication that as the school became established, a slightly larger proportion of non-selective pupils was remaining at school longer. The marked increase which commenced in connection with the 1962 intake is, undoubtedly, related to the abandonment of streaming. This increase continued for the next four years so that by the time the 1965 entry, which was completely unstreamed, reached the fifth form stage, the percentage of nonselective pupils remaining at school for five years had more than trebled over the ll-year period. (172) It is important to note that the blocking arrangement involving systems of parallel forms had a greater effect on the 'staying on' rate of non-selective pupils than it did on that of the selective pupils. (173) This is understandable as the selective pupils were, generally speaking, placed in top block forms during the period that the banding system was in operation, whilst not all non-selective pupils had the

<sup>172. 15.1%</sup> from the 1955 intake rising to 54.7% from the 1965 intake.

<sup>173.</sup> The blocking or banding system was used in connection with the 1962 and 1963 intakes when they entered the school.

same opportunities under this system as they had subsequently under a system of complete non-streaming to prepare for external examinations. The introduction of the Certificate of Secondary Education examination in 1965 may also have had some effect in inducing non-selective pupils to remain at school longer, although they would only do so if the school organisation gave them an opportunity of preparing for this examination. Complete non-streaming renders this possible in a way that a banding system, which many regard as a disguised form of streaming, does not. (174)

In the period 1955-61, only 20.9% of all non-selective pupils entering the school completed the five-year course. During the period 1962-65, this figure rose to 42.5%, a much more highly significant increase than is to be noted in the case of selective pupils.

A comparison between the average V.R.Q. of selective pupils entering the school over the 11-year period and the average V.R.Q. of selective pupils completing the five-year course shows little appreciable difference.

The average V.R.Q. over the whole of the period is 120 in both instances. (175)

Average V.R.Q. of selective pupils in each annual intake and in the group completing the fifth year

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Intake	126	124	122	122	119	122	118	119	117	117	117	120
Fifth form	126	124	122	122	117	122	119	118	117	117	117	120

In the case of non-selective pupils, the average V.R.Q. of those staying for five years was, in the early years, as much as ten points greater than the average V.R.Q. of those in the original intake. With the passage of time

<sup>174.</sup> e.g. To divide a 12-form entry into three blocks each containing 4, 4 and 4 parallel forms is tantamount, on this argument, to rigid streaming in a 3-form entry school. The pupils are so tightly packed together in the normal distribution curve of abilities in the 12-form intake as to render it impossible to separate them clearly from each other and the three separate blocks may, therefore, be regarded as equivalent to three separate streams in a 3-form entry school.

<sup>175.</sup> The table also shows how the average V.R.Q. of selective pupils fell over the years in a manner in which the average V.R.Q. of the non-selective pupils did not.

this difference tended to diminish so that by the time the first completely unstreamed intake reached the fifth form stage (1965 intake) the discrepancy was less than four points, thus confirming the tendency for more non-selective pupils of lower V.R.Q. to remain at school longer.

Average V.R.Q. of non-selective pupils in each annual intake and in the group completing the fifth year

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Intake	101	101	100	97	98	95	97	98	96	97	97	98
Fifth form	110	111	109	105	106	105	105	104	103	104	101	105

# THE FORM SYSTEM

A consideration of the numbers of pupils in first year forms who completed the five-year course (176) indicates that during the period 1955-60 (177) when the school was streamed, the proportion of pupils in the top three first year forms who stayed for five years was noticeably higher than the proportion in other forms lower down in the hierarchy. This is seen in the figures relating to the 1957 intake in which there were eleven first year forms.

Percentage	of	pupils	in	each	form	completing	the	fifth	year
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1957 entry	1A	18	10	lD	1E	1F	lG	1H	ıĸ	18	1T	Total
%	82	90	62	54	21	14	24	10	8	0	0	37%

<sup>176.</sup> See Table 53 in Appendix i for precise numbers and percentages relating to all first year forms in each year.

<sup>177.</sup> The pattern for 1961 is slightly different and probably results from the re-organisation to which these pupils were subjected in their second and third years after being rigidly streamed in the first year.

From 1962 onwards, when streaming ended, the difference between the maximum and minimum percentages of pupils completing the fifth year from first year forms diminished (178) as the number of first year forms having higher proportions of pupils remaining at school increased. The 1963 intake was rather exceptional in that a top first year form (1S) was taken out after one term and every one of the pupils in this form completed the five-year course. The following figures relating to the 1964 intake, which was not completely unstreamed enables a comparison to be made with the figures for the 1957 intake shown above and shows the 'evening-up' of the proportions from each first year form that took place after streaming ended.

	Percentage o		of pupils		in each	form completing		the fifth		year		
1964 entry	1T	1H	1E	lW	10	1D	lN	18	11	. 10	)	Total
%	58	82	63	68	68	52	69	74	11	. (	)	59%

By 1965, with complete non-streaming in the first year, an average of almost two-thirds of each first year form was destined to complete the five-year course and led to a situation in which four of the ten unstreamed forms in that year had a greater proportion of pupils completing the five-year course than had some of the top forms in the period 1955-61 when the school was rigidly streamed. A comparison of the percentages of pupils in first year forms who eventually completed five years in the school in the 1961 and 1965 intakes indicates clearly the great change that came over the situation as a consequence of the ending of streaming.

	Percent	age of	first	year	forms	comple	ting t	he fiv	e-year	course	
1961	lA	18	10	1D	1E	lf	1G	lH	18	1T	Total
%	86	60	55	57	30	21	19	11	0	0	38%
1965	1T	1H	1E	ıw	10	1D	1L	lA	lN	18	Total
%	71	65	70	72	56	57	64	71	48	70	64%

<sup>178.</sup> The maximum and minimum figures for the 1961 intake were 86% and 0%. Those for the 1965 intake were 72% and 48%.

The effect of promoting individual pupils and of re-organising forms at the end of the first year shows itself, throughout the whole of the ll-year period, in the different proportions of pupils remaining at school for five years in second forms compared with those in the first year. (179) Where such re-organisation took place there was a tendency for the proportion of pupils completing the five-year course from the top second year form to be greater than the percentage from the top first year form. (180) This might be anticipated if pupils who did well in their first year were placed in the top second year form.

It is of interest to note that, during the period when first and second year forms were banded in a system of parallel forms (1962-64 intakes) there was a tendency for forms in the top block, after re-organisation at the end of the first year, to include a larger proportion of pupils who eventually stayed for five years. This is seen by reference to the following figures relating to the top blocks in the first and second years of the 1962 entry.

Percer	ntage	of	top	block	forms	compl	eting
	1	the	fiv	e-year	course	2	
<u>la</u>	<u>1B</u>	10	2 3	<u>1D</u>	<u>2A</u>	<u>2B</u>	<u>2C</u>
59	67	73	5 8	81	77	81	77

In spite of an attempt to ensure that first year forms were as homogeneous as possible in respect to ability as indicated by the V.R.Q. a relatively wide variation in the proportions remaining for five years in first and second year forms is to be noted even after complete non-streaming had occurred. (181)

Figures relating to the percentage of pupils in third year forms completing the five-year course show how greatly the chances of pupils, who at the end of the second year were placed in one of the top two forms in

<sup>179.</sup> See Table 54 in Appendix i for precise figures relating to each year.

<sup>180.</sup> e.g. 82% from 1A in the 1955 entry rising to 93% in 2A.

<sup>181.</sup> e.g. 72% in 1W compared with only 48% in 1N in the 1965 entry.

the third year, were enhanced of remaining at school for five years. (182)

Over the seven-year period 1955-61, when the school was streamed, in 11

cases out of 14, the proportion of pupils remaining at school in the top

third year forms increased by comparison with the proportions in the equivalent second year forms as indicated in the following figures.

<u>19</u>	55	19	56	<u>19</u>	<u>57</u>	<u>19</u>	<u>58</u>	<u>19</u>	<u>59</u>	<u>19</u>	60	19	<u>61</u>
2A	2B	2 <b>A</b>	2B	2A	2B	2 <b>A</b>	2B	2 <b>A</b>	2B	2 <b>A</b>	2B	2A	2B
93	77	73	77	82	90	96	85	78	83	74	88	68	79
3K	3L	3K	3L	3K	3L	3K	3L	3K	3L	3A	3B	. <b>3</b> A	<b>3</b> B
91	92	83	84	84	89	89	92	90	93	82	100	71	79

This occurred at the expense of pupils who were in the lower forms which in the third year were depressed still further as a consequence of the more able pupils being removed from them. Even, after streaming was ended, under a parallel form system, where there was a reduction in the number of forms in a top or middle block, following re-organisation, a similar tendency is to be seen in so far as the proportions of pupils in re-organised top and middle block forms remaining at school for five years are higher than the proportion in the top and middle block forms in the previous year. This is achieved at the expense of the re-organised bottom block forms which are deprived still further of able pupils.

During the period when the school was streamed, very little reorganisation of forms took place at the end of the third year, but what
little did occur, as a consequence of individual pupils being transferred
to higher forms, tended to increase the proportion of pupils in top forms
remaining at school for five years. (184)

<sup>182.</sup> See Table 55 in Appendix i for precise figures relating to each form over the 11-year period.

<sup>183.</sup> This is apparent in relation to the 1962 entry when there were the same number of forms in each block after re-organisation at the end of the second year and in relation to the 1965 entry when ten second year forms that were parallel were reduced to seven within a top block and two in a lower block.

<sup>184.</sup> See Table 56 in Appendix i for precise figures relating to each year.

The re-organisation which took place in respect of the 1965 entry indicates the effect of taking out a single top form and a block of two parallel forms at the end of the third year and how greatly this increased the proportion of pupils in these three forms who completed the five-year course to well over 90%. Again, this was achieved at the expense of the lower forms and resulted in two of these forms having no pupils at all who stayed for five years. This suggests that the advantages gained as a result of complete unstreaming in the early years may be prejudiced subsequently by injudicious decisions relating to organisation in the third and fourth years. (185)

<sup>185.</sup> The school now realises this and, consequently, no attempt is made to take out a bottom form or group of forms at any stage in the third or fourth years.

# PART FOUR

CONCLUSIONS

# CONCLUSIONS

#### All pupils

- 1. During the seven-year period (1955-61) that the school was streamed, the proportion of each annual intake which completed five years in the school remained virtually constant. This is reflected in the fact that no single annual figure exceeded 40% and the difference between the minimum and maximum percentages of the original intake completing the five-year course was not more than 3.3% during this period.
- 2. The ending of streaming in 1962 was immediately accompanied by a significant increase in
  - (a) the numbers of pupils completing the five-year course. This was reflected in the fact that from the last streamed intake of 1961 only 96 pupils completed the five-year course by comparison with 172 who did so from the first completely unstreamed intake of 1965, four years later.
  - (b) the proportion of the original entry remaining at school for five years. This was reflected in the fact that 37.5% of the 1961 entry completed the five-year course compared with 64.4% from the 1965 entry who did so.
- 3. Although an increase in the 'staying-on' rate was seen immediately streaming was abandoned and the intakes were arranged in parallel forms within separate blocks, it was not until the intake that was completely unstreamed on entry to the school (the 1965 intake) reached the fifth form stage that the full effect became apparent.
- 4. Although the ending of streaming was accompanied by an increase in the proportion of high ability pupils with V.R.Q.'s in the range over 116, completing the five-year course, the increase was not so highly significant as in the case of pupils of lower V.R.Q. Neither did it coincide precisely with the abandonment of streaming in 1962 but only became apparent in the case of pupils with V.R.Q's over 115 when the 1964 and 1965 intakes which were virtually unstreamed and completely unstreamed respectively reached the fifth form stage.
- 5. The most significant increase in the percentage of pupils completing the five-year course after streaming was abandoned occurred in the case of pupils of below-average ability in the V.R.Q. range 85-99 This is reflected in the fact that between 1961 and 1965 the percentage of the original intake completing five years in the school and having V.R.Q.'s in this range rose from 12.3% to 43.8%.
- 6. Also highly significant was the increase in the 'staying-on' rate after streaming was ended in the case of above-average ability pupils in the V.R.Q. range 100-115. This was reflected in the fact that between 1961 and 1965 the percentage of the original intake having V.R.Q.'s in this range who completed five years in the school rose from 46.1% to 76.6%.

- 7. The main reason why the increase in the 'staying-on' rate of the higher ability pupils (V.R.Q.'s over 115) was not so significant, after the ending of streaming, as that of pupils of lower ability lay in the fact that the majority of these pupils were selective pupils who already constituted the major portion of those pupils who completed the five-year course during the period when the school was streamed.
- 8. Although the numbers involved were not large, the abandonment of streaming was accompanied by a significant increase in the percentage of pupils completing the five-year course and having V.R.Q.'s in the range below 85. The external examinations results which relate to these pupils, after streaming was ended, indicates the possibility of pupils from this part of the ability range being able to deal with examination work provided that they have not been conditioned at an earlier stage of their school career into believing themselves incapable of doing so.
- 9. Although the ending of streaming was accompanied by an increase in the proportion of below-average pupils in the V.R.Q. range 85-99 remaining at school, that was more significant than the increase associated with pupils from any other part of the ability range, it was not great enough to compensate for the fact that a higher proportion of above-average pupils in the range 100-115 completed the five-year course prior to the abandonment of streaming.

  The consequence of this was that even after pupils from the first completely unstreamed intake of 1965 reached the fifth form stage, the proportion of the original intake completing five years in the school and which consisted of above-average pupils (V.R.Q. 100-115) was still nearly twice as large as the percentage consisting of below-average pupils (85-99).
- 10. Pupils of higher V.R.Q. (over 115) have, over the period with which this investigation is concerned, formed a progressively smaller proportion of those completing the five-year course as a consequence of the decreasing numbers of such pupils entering the school. This is reflected in the fact that of all pupils from the 1955 intake who completed the five-year course, 73.1% had V.R.Q.'s over 115 compared with only 23.3% of the fifth form from the 1965 intake having V.R.Q.'s above 115.
- 11. Pupils of above and below-average ability (V.R.Q. 85-115) have, over the whole of the period with which this investigation is concerned, progressively formed a larger proportion of those completing the five-year course because of the increasing numbers of such pupils entering the school over the years. The abandonment of streaming in 1962 had the effect of accelerating the earlier tendency for these pupils to form a higher proportion of the total number of pupils in the fifth form. This is reflected in the fact that from the 1965 unstreamed intake
  - (a) over 55% of all those completing the five-year course had V.R.Q.'s in the range 100-115 compared with only 20.5% from the 1955 intake
  - (b) 16.3% of all those completing the five-year course had V.R.Q.'s in the range 85-99, compared with only 1.9% from the 1955 intake.

12. In spite of the highly significant effect on the 'staying-on' rate of below-average pupils associated with unstreaming, in the four-year period after the ending of streaming, 85% of all pupils who completed the five-year course still had above-average V.R.Q.'s. In the seven-year period prior to unstreaming, the figure was 91.5%.

#### Selective and non-selective pupils

1. The proportion of each annual intake completing five years in the school and consisting of selective pupils did not vary significantly over the whole of the 11-year period 1955-65, the ending of streaming having only a relatively small effect which was not statistically significant.

This is reflected in the fact that

- (a) 36.8% of the streamed intake of 1961 completed five years in the school of which 26.9% were selective pupils and that eleven years later, when 64.4% of the unstreamed intake of 1965 completed five years in the school, 25.1% of this consisted of selective pupils.
- (b) In the seven-year period 1955-61, 37.6% of the total number of pupils entering the school completed the five-year course of which 22.9% were selective pupils, whilst in the four-year period 1962-65, 54.7% of the original intake completed the five-year course of which 25.8% were selective pupils.
- 2. The percentage of selective pupils in the original annual intakes who completed the five-year course did not vary significantly over the nine-year period 1955-63, but rose significantly when the pupils in the 1964 and 1965 intakes reached the fifth form stage. This is reflected in the fact that 73.8% and 73.3% of all selective pupils in the 1962 and 1963 intakes entered the fifth form compared with 86.4% and 89.3% of selective pupils in the 1964 and 1965 intakes who did so.
- 3. The most significant effect associated with the abandonment of streaming was associated with the group of non-selective pupils, the number of which completing the five-year course rose significantly immediately streaming ended and highly significantly when the first completely unstreamed intake reached the fifth form stage. This is reflected in the fact that
  - (a) of the 37.5% of the 1961 intake which completed five years in the school, only 14.8% consisted of non-selective pupils and within a period of four years, 64.4% of the 1965 intake entered the fifth form of which 39.3% consisted of non-selective pupils.
  - (b) in the four-year period after streaming was abandoned, the larger proportion of the total intake completing five years in the school consisted of non-selective pupils whereas prior to this, the larger proportion consisted of selective pupils.
  - (c) almost as many non-selective pupils completed the five-years course during the four-year period after streaming ended as did so in the whole of the seven-year period prior to this when the school was streamed.

- 4. The transition to non-streaming was accompanied by a change in the character of the fifth form in so far as non-selective pupils formed the major proportion of those entering the fifth form within two years of the ending of streaming. This is reflected in the fact that
  - (a) the fifth form resulting from the last streamed intake of 1961 consisted of 60.4% of selective pupils and 39.6% of non-selective pupils whereas the fifth form associated with the 1965 unstreamed intake consisted of only 39.0% of selective pupils and 61.0% of non-selective pupils.
  - (b) the fifth form resulting from the earliest of the streamed intakes (the 1955 intake) contained almost three times as many selective pupils as non-selective pupils whereas the fifth form resulting from the unstreamed intake of 1965 contained one and a half times the number of non-selective pupils as selective pupils.
  - (c) there was, from the 1962 and subsequent intakes, a substantial increase in the percentage of non-selective pupils from each annual intake who entered the fifth form. This is reflected in the fact that only 22.4% of all non-selective pupils in the 1961 intake entered the fifth form compared with 54.7% who did so from the 1965 intake, the increase being a progressive one in the years between. This implied that the percentage of non-selective pupils remaining at school more than trebled between 1955 and 1965.
- 5. The banding system in operation between the ending of streaming and the adoption of complete non-streaming, had a greater effect on the 'staying-on' rate of non-selective pupils than it did on that of selective pupils who were not so greatly affected by the abandonment of streaming until the intakes became completely unstreamed.
- 6. There was little appreciable difference between the average V.R.Q. of selective pupils entering the school over the 11-year period (1955-65) and the average V.R.Q. of selective pupils completing the five-year course.
- 7. The average V.R.Q. of non-selective pupils entering the school in the early years when the school was streamed was significantly lower than the average V.R.Q. of non-selective pupils entering the fifth form. The ending of streaming was accompanied by a reduction in the discrepancy between these two average V.R.Q. values, so that by the time the 1965 completely unstreamed intake reached the fifth form stage, the difference was only four points.

#### The form system

- 1. During the seven-year period (1955-61) when the school was streamed.
  - (a) only the top three or four forms in each year, which contained the selective pupils, had substantial numbers of pupils in them who completed the five-year course. The majority of forms had relatively small numbers of pupils in them who stayed for five years.
  - (b) there was, at least, one form and sometimes more in each year in which no pupils could be found who would complete the five-year course.
- 2. Even after streaming was abandoned in 1961 and a blocking system was in operation, there was in each of the first three years one form in which no pupils were to be found who would complete the five-year course. Only the advent of complete non-streaming resulted in a substantial proportion of the pupils in every form completing the five-year course.
- 3. The abandonment of streaming resulted in an immediate and significant increase in the numbers of pupils in first year forms who completed the five-year course and in highly significant increases when complete non-streaming was adopted in the first year. This was reflected in the fact that by 1965 when the first completely unstreamed intake entered the school.
  - (a) each first year form contained a substantial proportion of pupils who completed the five-year course. This was reflected in the fact that an average of almost two-thirds of the pupils in all the first year forms were destined to complete the five-year course compared with an average of less than 40% coming from a restricted number of first year forms who did so during the seven year period that the school was streamed.
  - (b) four of the ten completely unstreamed first year forms had a greater proportion of pupils in them who completed the five-year course than had some of the top forms which contained selective pupils only in the period when the school was streamed.
- 4. Where re-organisation of top forms or top block forms took place, based on pupil performance, there was a tendency for the proportion of pupils in the newly created top or top block forms who remained at school for five years to be greater than the proportion who remained at school in the corresponding forms prior to re-organisation. This increase was gained at the expense of the forms lower down in the hierarchy which were depressed still more as a consequence of the more able pupils being taken from them.

- 5. In spite of an attempt to ensure that unstreamed first year forms were rendered as homogeneous as possible in terms of ability, a fairly wide variation in the proportions of pupils in first year forms remaining for five years was noted, though all forms contained a considerable proportion.
- 6. Forming a top first year form consisting of the most able pupils as indicated by performance in school subjects and keeping them together for the duration of the five-year course was beneficial to the pupils in that form in so far as a larger proportion completed the five-year course than did so in any other form during the whole of the ll-year period with which this investigation is concerned. The benefit was, however, restricted to the pupils in that form and may even have reduced the proportion of pupils in other forms that year who completed the five-year course.

# PART FIVE

# SEASON OF BIRTH EFFECTS

- 1. Introduction
- 2. Season of birth statistics and analyses on a quarterly and termly basis relating to:
  - (a) Pupils completing the five-year course
  - (b) Success at 'O' level all pupils
  - (c) Success at 'O' level selective and non-selective pupils
  - (d) Pupils placed in the top and bottom streams

#### SEASON OF BIRTH EFFECTS

#### Introduction

Most previous investigators concerned with discovering a relationship between date of birth and performance in school have inclined to the conclusion that Autumn-born children are more advantageously placed than those born earlier in the year. This is not to say that they are necessarily more intelligent or intrinsically more able. Their better performance is more likely to be related to the fact that they are the eldest children in the group in which they have been taught. John (1962) and Williams (1959) agreed that a significantly higher proportion of retarded readers and of educationally backward children were among those born in the Summer months compared with those born in the Autumn. (186) Pidgeon (1965) concluded that any advantage accruing from a higher intelligence which some had found those born in the warmer months to possess, was out-weighed by the greater disadvantage of being born at the end of the school year and of being, therefore, the youngest in the group. (187) It would probably be safer to assume that intelligence is not directly related to the time of the year when one is born and that variations are more likely to be related to the age of the child in relation to the group in which he is taught.

Jinks (1964) showed that in a streamed junior school, those born in the Summer months were at a disadvantage, whatever method is adopted to form the streams, there being a significantly higher proportion of older children in the 'A' stream. (188) Jackson (1964) confirmed these results and showed that the larger the school (having more streams), the greater the disadvantage accruing to those born in the Summer months. (189).

<sup>186.</sup> John, E. (1962) The age factor in reading retardation - Researches and Studies (University of Leeds Institute of Education), 24, 1-17. Williams, P. (1959). The growth of reading vocabulary - Unpublished Ph.D. thesis, University of London.

<sup>187.</sup> Pidgeon, D.A. (1965). <u>Date of birth and scholastic performance</u>. Educational Research., VIII, 1, 3-7.

<sup>188.</sup> Jinks, P.C. (1964). An investigation into the effect of date of birth on subsequent school performance. Educational Research., VI, 3, 220-5

<sup>189.</sup> Jackson, B. (1964). Streaming: An education system in miniature. London: Routledge and Keegan Paul.

Pidgeon (1965) accepted this and agreed that while the abolition of streaming would certainly remove one obvious and distasteful effect, it would not solve the problem which arises from the effects of teaching within the same group, younger and older children.

Freyman (1965) confirmed these results and showed that the tendency persisted into the secondary school where significantly larger numbers of Summer-born children were in the lower streams. (190) Even in selective secondary schools Freyman discovered that the Summer-born did not achieve as high a standard in the annual examinations.

Armstrong (1966) concluded, after finding no significant difference in performance of a group of 24,000 children at the age of 11 plus, using standardised tests, that it makes no difference to a child's achievement at the age of 11 years whether he spends one or two terms more or less in the infants school. (191)

Jinks (1964) and Jackson (1964) independently found that standardised tests even with built-in allowances did not prevent Summer-born children being at a disadvantage, although it should be noted that information additional to the standardised tests was used in the area in which Jackson conducted this investigation.

Shearer (1967) showed that selection based on teachers' assessments placed the youngest children in the age group at serious disadvantage whether the selection was for entry to grammar schools, special schools or for streaming within a school. (192) While concluding that standardised tests do not discriminate significantly against the younger children in the age group, Shearer agreed that even those tests that incorporate an age allowance appear to place the less able children who are born in May-August at

<sup>190.</sup> Freyman, R. (1965). Further evidence on the effect of date of birth on subsequent school performance. Educational Research, VIII, 1.

<sup>191.</sup> Armstrong, H.G. (1966). A comparison of performance of summer and autumn born children at 11 and 16. British Journal of Educational Psychology, 36, 1, 72-6.

Psychology, 36, 1, 72-6.

192. Shearer, E. (1967). The effect of date of birth on teachers' assessment of children. Educational Research, X, 1, 51-6.

a disadvantage. He suggested that the more able children are able to overcome the adverse effects of less schooling in the infant stage by the time they are 11 years of age.

Choppin (1969) concluded that unless an age allowance is made when children take a test at 11-plus, the results may be unfair to the younger children, but quoted Pidgeon as finding little evidence of this. (193)

Most of the work in this field has been carried out in junior schools and there is not yet sufficient evidence to enable firm conclusions to be reached concerning a connection between season of birth and performance in the secondary school. Armstrong (1966) found no appreciable difference in attainment, for instance, at '0' level between Summer-born and Autumn-born children in grammar schools, whether they were streamed, unstreamed or 'setted'.

Sutton (1967) using data obtained from two grammar and six secondary modern schools in Hampshire, found no bias in 11-plus selection but confirmed Freyman (1965) in noting a marked bias in the selection for streams in the secondary modern schools. (194) Autumn-born children were found to obtain significantly better examination results in the secondary modern school, and the conclusion was reached that for the majority of the secondary population (those in secondary modern schools) the bias in streaming and in achievement, based on seasonal differences of birth, remain uniform up to the school leaving age. Sutton also suggested that the age group effect would not necessarily be found to exist in grammar schools and that the bias would not consequently extend to G.C.E. results in such schools.

<sup>193.</sup> Choppin, B.H. (1969). The relationship between achievement and age. Educational Research, XII, 1, 22-9.

<sup>194.</sup> Sutton, P. (1967). Correlation between streaming and season of birth in secondary schools. British Journal of Educational Psychology, 37, 300-4.

#### SEASON OF BIRTH STATISTICS ON A MONTHLY, QUARTERLY AND TERMLY BASIS

The information on which the analyses in this Chapter are based is presented in Appendix i on a monthly basis. No attempt has, however, been made to submit the data to analysis in monthly form for the following reasons:

- (a) a month is an arbitrary unit of non-constant duration, varying between 28 days and 31 days
- (b) the sample sizes are not such as to justify as much confidence being shown in any conclusions that are derived as when alternative modes of analysis on a quarterly and termly basis are used.

The data to which references are to be found in this Chapter and which is located in Appendix i represents the number of pupils in each annual intake, born in the various months of the year, who come within the described categories.

In the analyses which follow, the frequencies indicated on a monthly basis in the tables in the Appendix (195) have been added together, three at a time, in order to provide data on a quarterly basis. This, to some extent, overcomes the objections implicit in a monthly analysis and at the same time enables a comparison to be made between the frequencies associated with the various three-monthly periods. It is then possible to choose those quarters which appear to provide the most appropriate basis for further analysis. Where further analyses have been attempted, these are on the basis of the following groupings.

- 1. December/January/February 3. June/July/August

2. March/April/May

4. September/October/November

The frequencies indicated in the Appendix on a monthly basis have also been added together, four at a time, to correspond with the three terms of the school year as follows:

See Appendix i, Tables 57-73 for data on a monthly basis relating to 195. season of birth effects.

Spring Term - January/February/March/April

Summer Term - May/June/July/August

Autumn Term - September/October/November/December

Whilst some investigators have carried out their analyses on a quarterly basis, most have preferred to conduct them on a basis which corresponds with the three terms of the school year. The present chapter includes a reference, therefore, to both quarterly and termly analyses. Where this occurs, it should be noted that the Autumn Term corresponds with the quarterly period September/October/November with the addition of December and that the Summer Term corresponds with the quarter June/July/ August together with the month of May. This makes possible a comparison between the conclusions associated with the quarters June/July/August and December/January/February and the Summer and Autumn terms respectively, in the sense that the influence, on the results, of those pupils born in May and December can be observed.

#### PUPILS COMPLETING THE FIVE-YEAR COURSE

Reference to the appropriate Table in the appendix (196) indicates a below-average number of October/November born pupils and an above-average number of March-born pupils who completed the five-year course. This, however, is probably no more than a consequence of the non-random nature of the total intake over the period under investigation. (197) That this is so, is confirmed when the data is set out as follows on a quarterly basis and a goodness-of-fit test applied. (198)

Observed frequencies

Expected frequencies

Quarter	Staying 5 years	Not staying 5 years	Total
12/1/2	319	443	762
3/4/5	357	456	813
6/7/8	332	424	756
9/10/11	300	399	699
Total	1308	1722	3030

Staying 5 years	Not staying 5 years	Total
329	433	762
351	462	813
326	430	756
302	39 <b>7</b>	699
1308	1722	3030

A chi-square of 0.92 resulted which is not significant and does not establish a connection between the time of year at which a pupil is born and a tendency to complete the five-year course. At the same time it must be remembered that Autumn born pupils could, during part of the period with which this study is concerned, leave school at Christmas in their fourth year, whilst Spring born pupils could leave at Easter in their fourth year. (199 All Summer born pupils, on the other hand, were compelled to remain until the end of the Summer Term.

<sup>196.</sup> See Table 57 in Appendix i.

<sup>197.</sup> See Section on Season of Birth in Chapter Two where it was shown that a significantly larger number of pupils having birthdays in March and a significantly below average number having birthdays in October and November entered the school over the ll-year period.

<sup>198.</sup> This was so up to and including 1964.

<sup>199.</sup> See Table 58 for data relating to numbers of pupils not completing the five-year course.

In order to find out whether there was any difference between the results in the periods prior to and after streaming was ended, further analyses were conducted which related specifically to the period 1955-61 and 1962-65. The chi-square value resulting from the former analysis was 2.01 compared with a value of 1.19 associated with the latter analysis. Although neither of these results is statistically significant, each is slightly more so than the value relating to the whole of the 11-year period, but it would be untrue to say that either streaming or the abandonment of streaming is associated with any significant tendency for pupils born at particular times of the year to complete the five-year course in larger numbers than those born at other times of the year.

A similar analysis, carried out on a termly basis, confirmed the previous conclusion that there is no obvious connection between the time of year a pupil is born and the tendency for him to complete the five-year course of studies. The figures appeared to suggest a slight tendency for pupils born in the Autumn Term not to complete the five-year course compared with those born in other terms, but the resulting chi-square was only 0.65 which is not significant.

Whilst, therefore, the previous chi-squared tests indicate no statistically significant season of birth effect associated with the completing of the five-year course of studies, the following table indicates clearly that the higher proportion of the annual intake completing five years is associated with those pupils born in the Spring and Summer Terms.

# Pupils completing the fifth year as a percentage of the original intake

Quarter	1955 1956	1957 1958	1959 19	60 1961	1962 1	1963	1964	1965	Totals
1/2/3	38.1 42.1	33.8 27.1	35.1 38	.6 40.6	44.8 5	53.7	67.7	66.7	43.7%
2/3/4	36.4 43.3	28.9 33.8	40.0 45	•3 43•5	47.7 5	50.0	56.5	65.7	44.0%
3/4/5	31.6 41.8	34.1 30.7	42.0 40	•3 47.5	55.6 5	51.6	52.5	67.7	43.9%
4/5/6	33.3 43.1	32.1 39.1	45.7 39	.5 46.2	55.0 4	44.2	49.2	59.1	43.6%
5/6/7	37.2 35.1	43.3 42.9	45.7 33	.8 38.7	51.6 4	+8.2	52.6	60.6	44.2%
6/7/8	40.3 36.8	42.6 43.0	45.7 37	.2 31.0	44.1 4	+7.8	52.5	66.2	43.9%
7/8/9	43.3 28.4	43.5 40.7	44.3 37	.8 29.6	45.6 4	+9.1	61.0	69.4	44.0%
8/9/10	43.9 32.2	36.1 37.2	44.2 41	•7 31.5	45.1 4	+5.1	58.3	<b>69.</b> 8	43.5%
9/10/11	45.6 31.0	31.8 38.6	39.5 41	.9 36.1	44.6 4	12.6	64.4	60.3	42.9%
10/11/12	31.7 37.3	39.4 39.7	35.1 35	.4 37.3	40.4	44.0	57.1	61.5	41.1%
11/12/1	31.0 40.8	40.3 32.6	29.6 30	<b>.</b> 9 37 <b>.</b> 3	41.5 4	+8•1	66.2	61.9	41.0%
12/1/2	31.4 40.6	40.3 34.2	33.0 32	.9 36.9	39.7 4	∙8.9	64.7	63.2	41.9%
Average	36.7 38.0	36.8 36.5	39.8 37	.8 37.5	46.4 4	17.8	<b>5</b> 8.7	64.4	43.2%

Although there are no highly significant differences between the average values associated with the various quarters in this table, the proportions of pupils completing the fifth year who were born in the quarters listed in the first half of the table are, with one exception, higher than those relating to pupils born in the quarters in the second half of the table. (200) That is to say, pupils born in the period February - August tend to enter the fifth form and to stay for five years in relatively greater numbers because those who are born in the period September - January could leave before the end of the Summer Term in their fourth year and, having done so, do not return. (201)

<sup>200.</sup> See Table 57 in Appendix i for an indication that pupils born in the period February - August inclusive, who were compelled to remain at school until the end of the Summer Term in their fourth year, are responsible for the higher proportions in the first half of the table above.

<sup>201.</sup> See Table 57 in Appendix i where a below-average number born in the months October, November and December remain for five years, these being the pupils who were entitled to leave school, until 1964, at Christmas and, after this at Easter in their fourth year and who, in some cases did so.

A similar analysis conducted on a termly basis shows little difference between the proportions of pupils born in the various school terms who remain for five years, a slight tendency being noted for a smaller percentage of Autumn born pupils to complete the five year course than is the case of those born in the other terms, thus confirming the conclusion in the last paragraph.

Term	Percentage of the intake completing five years
Spring	43.5
ohi iiig	<del>-</del> 7,•7
Summer	43.4
Autumn	42.1
	Mean: 43.2%

If, however, the data is presented with respect to the periods before and after streaming ended, the following tables result:

Term	Percentage of the intake completing five years	Term	Percentage of the intake completing five years
Spring	36.8	Spring	57.2
Summer	39.1	Summer	54.0
Autumn	36 <b>.</b> 8	Autumn	52.7
	Mean: 37.6%		Mean: 54.7%

The lowest percentage of pupils remaining at school for five years in each of the three different tables above are those whose birthdays are in the Autumn Term. During the period when the school was streamed, however, the largest percentage of pupils staying for five years was associated with those born in the Summer Term whereas, after streaming ended, the largest percentage was associated with those born in the Spring Term. It is unlikely that this shift has anything to do with the ending of streaming and is the more likely brought about by the fact that in the period 1955-61, pupils born in the Spring Term could leave at the end of the Spring Term in their fourth year, whereas during the period of the 1962-65 intakes, only those

born in the month of January could leave at the end of the Spring Term, the others having to continue until the end of the Summer Term.

#### SUCCESS AT 'O' LEVEL - ALL PUPILS

The analyses in this section are based on the data to be found in Tables 59-66 in Appendix i where the frequencies are set out on a monthly basis.

The first analysis relates to the whole group of pupils who remained at school for five years, whether they were entered for '0' level examinations or not, and who entered the school over the ll-year period 1955-65. A goodness-of-fit test applied to the following data gave rise to a chisquare of 25.38 which, for the six degrees of freedom associated with this table, is significant well beyond the one per cent level of 16.812.

Observed frequencies

Quarter	Ι	Number of par	sses at 'O' le	vel
of Birth	0	1, 2 or 3	4 or more	Totals
12/1/2	102	124	93	319
3/4/5	126	141	90	357
6/7/8	133	122	77	332
9/10/11	70	123	107	300
Total	431	510	367	1308

Expected frequencies

Quarter	Number of passes at '0' level			
of Birth	0	1, 2 or 3	4 or more	Totals
12/1/2	105	124	90	319
3/4/5	118	139	100	357
6/7/8	109	130	93	332
9/10/11	99	117	84	300
Total	431	510	367	1308

This significant result, taken in conjunction with that of an ensuing analysis relating only to pupils entered for 'O' level examinations, indicates that a pupil born during the quarter September/October/November and who remained at school for five years was more likely to be entered for and to do well in 'O' level examinations than a pupil born in any other quarter. (202) Also a pupil born in the quarter June/July/August who stayed for five years was less likely to be entered for 'O' level examinations, was more likely to gain no passes if he was entered and also less likely to gain four or more passes than a pupil born in any other quarter.

A similar analysis carried out on a termly basis for the whole of the period 1955-65 produced a chi-square of 14.91 which for the four degrees of freedom associated with a termly analysis is significant beyond the one per cent level of 13.28, although not so highly significant as the result obtained in respect of the quarterly analysis. In other words, the quarterly analysis is of greater value in indicating a season of birth effect and indicates that the optimum effect does not coincide precisely with the school terms.

In the case of the quarterly analysis the major season of birth effect is associated with pupils born in the six-month period June - November, inclusive, which cuts across the period covered by the Summer and Autumn terms. This explains why there is a reduction in the level of significance in the termly analysis by comparison with that resulting from the quarterly analysis. Both the termly and the quarterly analyses show that there is little contribution to the season of birth effect in the case of pupils gaining one, two or three passes. The main effects are associated with pupils gaining no passes at all and those gaining four or more passes.

In spite of the reduced level of significance in the results of the termly analysis, it may, nevertheless, be concluded that pupils born in the

<sup>202.</sup> The numbers of pupils born in the various quarters, who remained for five years and who were not entered for '0' level subjects are as follows: Dec/Jan/Feb - 48 Mar/Apl/May - 74 June/July/Aug - 75 Sept/Oct/Nov - 41.

Autumn term who remained at school for five years, were more likely to gain four or more passes and less likely to fail to gain any passes than were pupils born in any other term. Also, pupils born in the Summer Term were more likely to gain no passes and less likely to gain four or more passes than pupils born in any other term. (203)

The question naturally arises as to whether the season of birth effect discovered in relation to the whole of the period 1955-65 is apparent when the data associated with the periods before and after the ending of streaming are considered separately. In an attempt to answer this question, further analyses were carried out as follows.

# The period 1955-61

A chi-squared analysis on a quarterly basis for the period when the school was streamed produced a chi-square of 21.10 which for six degrees of freedom is significant beyond the 1% level of 16.812. (204) The greatest contribution towards this significant chi-square was associated with pupils born in the quarter September/October/November who gained four or more passes in larger numbers and who also were less likely to gain no passes at all than pupils born in any other quarter.

The tendency for pupils born in the quarter June/July/August to do less well at '0' level, although indicated in the results of the analysis is not so significant as the tendency for those born in the quarter September/October/November to do better than those born at other times of the year. In other words, during the period of streaming, pupils born in the quarter September/October/November were more advantaged as a consequence of a season of birth effect than those who were born in the June/July/ August period were disadvantaged.

<sup>203.</sup> A further analysis was carried out, which included only those pupils who gained 1 or more passes at '0' level. This produced a chi-square of 2.72 which is not significant and does not enable a relationship to be deduced between season of birth and success at '0' level. The most highly significant element in the whole array is that associated with pupils born in the Autumn term who appeared to be more likely to gain passes in four subjects than those born at other times of the year.

<sup>204.</sup> Note, however, that this is not so significant as the value of 25.38 obtained from the analysis relating to the whole of the ll-year period.

It is also apparent that pupils born in the quarter September/October/
November, if they entered the fifth form, were more likely to be entered
for 'O' level examinations than those born at other times of the year, as
evidenced from the following figures:

Quarter of birth	Number in the fifth form	Number not entered for 'O' level	% of fifth form not entered
12/1/2	182	29	15.9%
3/4/5	208	48	23.1%
6/7/8	204	45	22.1%
9/10/11	175	22	12.6%
Total	<del>7</del> 69	144	18.7%

It is to be noted how those born in the period December/January/
February are only slightly less advantaged than the Autumn born and that
those born in the Summer were no more disadvantaged than those born in the
quarter March/April/May.

A similar analysis carried out on a termly basis for the period 1955-61 produced a chi-square of 12.99 which for 4 degrees of freedom is significant at the 5% level but not at the 1% level of 13.277. This result was, therefore, not so highly significant as that which emerged from the quarterly analysis. It did, nevertheless, confirm the previous result by indicating the advantage accruing to the Autumn born pupil and the disadvantage facing those born in the Summer term, during the time that the school was streamed. This is indicated in the following tables on which the analysis was based.

Observed frequencies

	Passes at 'O' level				
Term	0	1, 2 or 3	4 or more	Total	
Spring	99	96	67	262	
Summer	114	100	59	273	
Autumn	66	91	77	234	
Total	279	287	203	769	

Expected frequencies

Passes at '0' level				
0	1, 2 or 3	4 or more	Total	
95	98	69	262	
99	102	72	273	
85	87	62	234	
279	287	203	769	

#### The period 1962-65

A similar analysis carried out for the period after streaming ended, on a quarterly basis, gave rise to a chi-square of 9.20 which for 6 degrees of freedom is not significant at the 5% level of 12.592 and does not, therefore, indicate a statistically significant relationship between being born in a particular quarter of the year and achievement at '0' level. What indication there is of a season of birth effect in these results is seen to be associated with those pupils born in the quarter June/July/August who appear less likely to gain any passes at '0' level and to a lesser extent, those born in the quarter September/October/November who appear less likely to gain no passes at '0' level than those born at other times of the year. There is, however, no significant indication during the period after streaming was abandoned of any positive advantage accruing to any group in the sense of being more likely to gain specific numbers of subject passes at '0' level by comparison with those born at other times of the year. (205)

Nevertheless, the ending of streaming did not eradicate the earlier noted tendency for those born in the period June/July/August not to be entered for 'O' level examinations, even when they entered the fifth form, by comparison with those born at other times of the year. The following figures, relating to the period 1962-65, indicate how those pupils born in the Summer Term continued to be at a disadvantage, after streaming ended, and how those born in the Autumn term were no more significantly advantaged than those born in the first five months of the year.

Quarter of Birth	Number in the fifth form	Number not entered for 'O' level	% of fifth form not entered
12/1/2	137	19	13.9%
3/4/5	149	26	17.4%
6/7/8	128	30	23.4%
9/10/11	125	19	15.2%
Total	539	94	17.4%

<sup>205.</sup> The numbers suggest a slight advantage accruing to the September born and a slight disadvantage accruing to those born in the late Summer but it is not significant.

A similar analysis, carried out on a termly basis, using the following data, produced a chi-square of 3.62 which is not significant and even less so than the result relating to the quarterly analysis.

Observed frequencies

	Passes at 'O' level				
Term	.0	1, 2 or 3	4 or more	Total	
Spring	59	76	59	194	
Summer	55	71	51	177	
Autumn	38	76	54	168	
Total	152	223	164	539	

Expected frequencies

Passes at 'O' level				
0	1, 2 or 3	4 or more	Total	
55	80	59	194	
50	<b>7</b> 3	54	177	
47	70	51	168	
152	223	164	5 <b>3</b> 9	

If the strict statistical test for significance is overlooked, a slight tendency is noted in these figures for pupils born in the Autumn term and those born in the Summer term to do better and less well respectively in 'O' level examinations, but such a tendency is even less apparent than in the analysis conducted on a quarterly basis.

One is entitled to conclude, therefore, that the season of birth effect does not appear as significant after streaming was abandoned, whereas, before this it was highly significant.

The previous analyses were repeated using data that included only those pupils who were entered for 'O' level as opposed to all pupils in the fifth form.

# Observed frequencies

# Expected frequencies

	Passes at 'O' level				
Quarter of birth	0	1, 2 or 3	4 or more	Total	
12/1/2	54	124	93	271	
3/4/5	52	141	90	283	
6/7/8	58	122	77	257	
9/10/11	29	123	107	259	
Total	193	510	367	1070	

Passes at 'O' level				
0	1, 2 or 3	4 or more	Total	
49	129	93	271	
51	135	97	283	
46	122	89	257	
47	124	88	259	
193	510	367	1070	

A chi-square of 17.23 results (206) which is significant beyond the 1% level of 16.812 for 6 degrees of freedom and indicates that a pupil born in the quarter June/July/August who was entered for 'O' level examinations was the more likely to gain no passes and less likely to gain four or more passes than a pupil born in any other quarter of the year. This result confirms the advantage, discovered in the previous analysis, accruing to Autumn born pupils and the corresponding disadvantage accruing to those born in the period June/July/August during the 11-year period 1955-65. (207)

Further analyses carried out in relation to the periods prior to and after the ending of streaming produced chi-square values of 13.10 and 8.24 respectively. The former, relating to the period 1955-61, is significant at the 5% level and indicates a significant relationship between season of birth and performance at 'O' level. The most obvious effect is in respect of those born in the period September/October/November who were much more likely to gain four or more passes and less likely to fail altogether than those born at other times of the year. Also indicated, although to a

<sup>206.</sup> This value is not so highly significant as that obtained in the previous analyses which included all pupils in the fifth form and which gave rise to a chi-square of 25.38.

<sup>207.</sup> A subsequent analysis relating to the separate categories of selective and non-selective pupils produced chi-square values that were not significant and indicated no significant season of birth effect over the 11-year period considered as a whole. There was, nevertheless, a tendency for selective pupils and non-selective pupils born in the September quarter to fare better and less well respectively, than their counterparts born in other quarters.

lesser extent, is the disadvantage accruing to those born in the quarter June/July/August in respect of gaining four or more passes and of failing altogether.

Although the chi-square value of 8.24 relating to the period after streaming ended is not statistically significant, there is a suggestion of an advantage accruing to those born in September/October/November in respect of appearing less likely to fail to gain any passes. Those born in the quarter June/July/August appear to be slightly disadvantaged in respect of being more likely to fail to gain any passes at all than those born at other times of the year. This disadvantage is not, however, so significant as is the advantage accruing to those born in the Autumn. It should be noted that, after streaming ended, the advantage accruing to pupils born in the Autumn term and the disadvantage accruing to those born in the period June/July/August as being more and less likely to gain four or more passes, respectively, disappeared completely.

A corresponding analysis carried out on a termly basis over the period 1955-65 produced a chi-square of 10.08 which is significant at the 5% level of 9.488 but not at the 1% level, as was the value obtained in the analysis conducted on a quarterly basis. This indicates that the connection between season of birth and 'O' level performance is associated less with a division of the year into school terms than with certain quarters of the calendar. Nevertheless, it may be affirmed that pupils born in the Autumn term who were entered for 'O' level examinations during the 11-year period 1955-65 were more likely to gain good results and less likely to gain no passes than those born in other terms.

These results, taken together with those in the preceding section, indicate that a pupil born in the Autumn term, who stayed at school for five years, was the more likely to be entered for 'O' level examinations and to do well compared with a pupil born in any other term over the period 1955-65. Also a pupil born in the Summer term was less likely to be entered for 'O' level examinations and was less likely to do well even if

he was entered than a pupil born in any other term. (208) Also indicated is a tendency for Spring born pupils to gain no passes and Summer born to fail to gain four or more passes by comparison with those born in other terms.

Additional analyses, on a termly basis, were carried out to discover whether any significant difference could be seen between the results prior to and after the ending of streaming.

The analysis for the period 1955-61 produced a chi-square of 7.91 which is not significant at the 5% level of 9.488, whilst that relating to the period 1962-65 gave a chi-square of 4.58 which is not significant at the 5% level and less than the value obtained for the period before streaming ended.

Although neither of the two analyses conducted on a termly basis gave statistically significant results, there was a suggestion, nevertheless, of a connection between season of birth and performance at '0' level, more particularly in the period before streaming ended.

The fact that there is not the large difference between the chi-square values for the periods before and after streaming ended such as was found in the previous analysis when all pupils in the fifth form were included, suggests that the ending of streaming did not have as great an influence on the season of birth effect in respect of the group of pupils who were entered for 'O' level examinations as it did in respect of the group of pupils who remained at school for five years whether entered for 'O' level or not.

The most noticeable difference lies in the fact that in the period 1962-65, the earlier tendency for pupils born in the Summer and Autumn terms to do less well and better respectively in respect of gaining four or more passes is no longer apparent, whereas in the period 1955-61, these tendencies were more apparent than they were in the analysis relating to the entire period 1955-65.

<sup>208.</sup> The following are the numbers of pupils born in the various terms who remained for five years but who were not entered for 'O' level subjects. Spring Term - 80; Summer Term - 99; Autumn Term - 59.

A further analysis was carried out which included all pupils who remained at school until they reached the statutory leaving age, whether they entered the fifth form or not or sat for '0' level examinations or not.

Observed frequencies

Expected	freq	uencies

	Passes at 'O' level			
્યarter of birth	0	1, 2 or 3	4 or more	Total
12/1/2	545	124	93	762
3/4/5	582	141	90	813
6/7/8	557	122	77	756
9/10/11	469	123	107	699
Total	2153	510	367	3030

Passes at 'O' level					
0	1, 2 or 3	4 or more	Total		
541	128	93	762		
578	137	98	813		
537	127	92	756		
497	118	84	699		
2153	510	367	3030		

The chi-square test gave a value of 12.44 which is almost significant at the 5% level of 12.592. Although the degree of significance is not so high as that found in the previous two analyses covering the period 1955-65<sup>(209)</sup> it does indicate that, considering the intake as a whole, as opposed to only those pupils who complete the fifth year, that those who are born in the quarter September/October/November are more likely to do well at '0' level and less likely to gain no passes at all than are pupils born in other quarters of the year. It also suggests that pupils born in the quarter June/July/August are less likely to do well at '0' level than those born in any other quarter of the year and particularly less likely to obtain four or more '0' level passes.

A similar analysis relating to the period 1955-65 conducted on a termly basis, produced a chi-square of 5.11 which is not significant at the 5% level of 9.488 and is less significant than the value resulting from the quarterly analysis. Nevertheless, a tendency is to be seen for pupils born in the Summer term to do less well and those born in the Autumn term to do

<sup>209.</sup> These relate to (a) all pupils in the fifth form and (b) all pupils entered for '0' level examinations.

better in respect of passing in four or more subjects than those born in any other term. Also noted is a tendency for pupils born in the Autumn term to avoid obtaining no passes compared with those born in other terms.

Separate analyses were carried out for the periods before and after streaming ended with the following results.

For the period 1955-61, a chi-square of 10.24 resulted which is not quite significant at the 5% level of 12.592 but which, nevertheless, indicates a strong tendency for pupils born in the period September/October/
November to gain four or more passes at '0' level in greater numbers than those born in other periods and a tendency, albeit much less, for these pupils to avoid failing altogether to gain passes at '0' level.

For the period 1962-65, a chi-square of 5.77 resulted which is less significant statistically than the previous result. Indicated, however, is a tendency for pupils born in the period June/July/August to do less well in all categories defined in the analysis table than those born at other times of the year. There is no indication, however, after streaming ended, that those born in the quarter September/October/November were greatly advantaged by comparison with those born in the other two quarters. Any indication there is, is slight and not to be compared with that found during the period when the school was streamed.

The season of birth effect in relation to performance at '0' level becomes even more apparent if the number of pupils born in various quarters of the year who gained various numbers of passes at '0' level is expressed as a percentage of the total number of pupils in the original intake having birthdays in those quarters.

## Pupils gaining five passes or more as a percentage of the original intake

Quarter of birth	<u> 1955<b>-</b>61</u>	<u> 1962-65</u>	<u> 1955-65</u>
Dec/Jan/Feb	5.4	12.1	7.6
Mar/Apl/May	5.4	13.0	7•9
June/July/Aug	6.4	9•5	7.4
Sept/Oct/Nov	9.3	12.3	10.3
Total	6.6	11.8	8.3

The above table implies, for instance, that 9.3% of all pupils born in the quarter September/October/November who entered the school during the period 1955-61, eventually gained five passes or more at 'O' level compared with 6.4% of those born in the quarter June/July/August who did so.

It should be noted that during the period 1955-65, the percentage of those born in the quarter September/October/November who gained five or more passes was significantly higher than the percentage born in any other quarter. That is to say, considering the ll-year period as a whole, the Summer born were not more disadvantaged than those born in the early and late Spring. A comparison of the various percentages associated with each quarter with the mean value for the whole intake shows that the figure relating to the Autumn born pupils is significantly higher than the mean (2.7% higher) whereas, all other percentages for the other quarters are below the mean for the whole sample. For the period 1955-65, therefore, any advantage relates to those born in the period September/October/November as opposed to a disadvantage arising from being born at any other time of the year.

By contrast with this, the figures for the period 1962-65, indicate that the percentages associated with all quarters of birth except June/July/ August are larger than the mean value for the whole group and it is only the percentage relating to the Summer born that is less than the mean, and this significantly so (2.3% below the mean). The figure of 9.5% of Summer born who gained five passes or more is almost as much below the mean for

the whole group as is the figure relating to the Autumn born in the period 1955-61 above the mean value for that period.

For the period 1962-65, therefore, there is a disadvantage associated with being born in the quarter June/July/August as opposed to an advantage resulting from being born in the Autumn or at any other time of the year.

The results for the whole of the period 1955-65 approximate more closely with the result for the period 1955-61, before streaming ended, than they do with the results for the period 1962-65, after streaming ended, there being a significant advantage associated with being born in the quarter September/October/November but no significant advantage or otherwise accruing from being born in any other quarter of the year.

An analysis conducted on a termly basis for the whole of the period 1955-65 produced the following results:

### Punils gaining 5 passes or more as a % of the original intake

Autumn born

Spring born	8.4%		
Summer born	7 • 3%	Mean:	8.3%

9.0%

The difference between the percentage of those born in the Summer and Autumn terms who passed in five subjects or more is not as significant as the difference between those born in the quarter June/July/August and those born in the quarter September/October/November in the previous analysis. Furthermore, pupils born in the Summer term appear to be under a greater disadvantage compared with those born in the Spring term than was apparent when the analysis was conducted on a quarterly basis.

The differences in the quarterly and termly analyses suggest, therefore, that a factor is at work in relation to pupils born in the first three months of the school year that is not so influential throughout the whole of the period of the Autumn term.

## Pupils gaining four passes or more as a percentage of the original intake

Quarter of birth	<u> 1955-61</u>	1962-65	<u> 1955-65</u>
Dec/Jan/Feb	10.3	16.2	12.2
Mar/Apl/May	7.8	17.9	11.1
June/July/Aug	8.5	13.7	10.2
Sept/Oct/Nov	13.6	18.6	15.3
Total	9.9	16.6	12.1

#### The period 1955-61

As in the case of pupils gaining five passes or more, a significantly larger proportion of those born in the quarter September/October/November were successful in passing four or more subjects than were those born in any other quarter of the year. Unlike those passing in five subjects or more, however, those born in the quarter December/January/February were not as greatly disadvantaged as those born in the six month period March - August inclusive. The percentage of pupils born in the period September/October/November who were successful was significantly higher than the mean value for the whole group (3.7% larger than the mean).

#### The period 1962-65

The disadvantage accruing to those born in the quarter June/July/
August is again apparent as in the case of those passing in five or more
subjects. What is here noted, however, is the positive advantage accruing
to those born in the quarter September/October/November by comparison with
those born in the other two quarters and particularly in the quarter
December/January/February. This was not noticeable in the case of pupils
gaining five or more passes.

#### The period 1955-65

The results for the whole of the ll-year period indicate a significantly greater advantage accruing to those born in the period September/October/November than to those born in any other quarter of the year. Also

seen is the disadvantage accruing to those born in the period June/July/August, although this is not significantly greater than the disadvantage accruing to those born in the period March/April/May.

The figures, generally speaking, suggest that success at 'O' level tends to vary inversely as the nearness of the time of birth to the commencement of the school year. (210)

The results for the three periods 1955-61, 1962-65 and 1955-65 indicate that whatever the advantages or disadvantages associated with being born at particular times of the year in respect of gaining four or more passes at 'O' level they are not so significant as in the case of pupils passing in five or more subjects. (211)

The analysis on a termly basis confirms the greater benefits associated with being born in the Autumn term compared with being born in any other school term and the corresponding relative disadvantage accruing to those born in the Summer term by comparison with those born in any other term. (212)

Pupils gaining three passes or more as a percentage of the original intake

Quarter of birth 1955-61 1962-65 1955-65

Dec/Jan/Feb	14.2	21.1	16.4
Mar/Apl/May	12.3	25.6	16.6
June/July/Aug	12.4	18.3	14.3
Sept/Oct/Nov	17.9	24.2	20.0
Total	14.1	22.3	16.8

<sup>210.</sup> i.e. a pupil born in December is more likely to be successful than one born in March who, in turn, will be more successful than one born in May.

<sup>211.</sup> This implies that the season of birth effect is more important in relation to those pupils who eventually pass in larger numbers of subjects and who might be regarded, because of this, as being the more able.

<sup>212.</sup> The figures on a termly basis are: Spring term - 12.0%; Summer term - 10.6%; Autumn term - 13.7%.

#### The period 1955-61

The figures relating to the period when the school was streamed reveal a pattern similar to that in the case of pupils passing in four or more subjects. In other words, an advantage is seen to be associated with being born in the quarter September/October/November, with those pupils born in the quarter December/January/February not being so greatly disadvantaged as those born in the six month period March - August inclusive. The advantage accruing to the Autumn born pupil, whilst significant, is not, however, as great as that accruing to the Autumn born pupil in respect of passing in four or more subjects and five or more subjects.

#### The period 1962-65

These figures indicate the greater disadvantage associated with being born in the quarter June/July/August than the advantage resulting from being born in the Autumn. The percentage of pupils born in the quarter June/July/August who passed in three subjects or more is 4% below the mean value for the whole group whereas the percentage of those born in the quarter September/October/November who were successful is only 1.9% above the mean. In fact, the advantage accruing to those born in the quarter March/April/May in the period after streaming ended is greater than the advantage accruing to those born in the period September/October/November. (213)

After streaming ended, the disadvantage accruing to those born in the quarter June/July/August is as great in respect of gaining three passes or more as that indicated in the last analysis relating to four or more passes. (214)

#### The period 1955-65

The figures for the ll-year period indicate no distinction between pupils born in the period December - May inclusive in so far as being successful in gaining three or more passes is concerned, the percentages for

<sup>213.</sup> Although this statement is also true for pupils gaining 5 passes or more, the difference in this case was not very significant.

<sup>214.</sup> This is not so for the period 1955-61 where the disadvantage diminished.

the whole of this six month period being almost identical with the mean value for the year group. The advantage of being born in the quarter September/October/November (3.2% above the mean) outweights slightly the disadvantage of being born in the quarter June/July/August (2.5% below the mean) and is further indicated by the fact that 20% of all pupils born in the Autumn period passed in three subjects or more compared with only 14.3% of those born in the Summer who did so.

The above results are reflected in further analyses conducted on a termly basis where a tendency is noted for those born later in the school year to be less successful in gaining three passes or more than those born earlier in the academic year. (215)

	Pupils gaining two passes or more as a percentage of the original intake			
Quarter of birth	1955-61	1962 <b>-</b> 65	1955-65	
Dec/Jan/Feb	16.9	27.9	20.5	
Mar/Apl/May	16.7	31.7	21.5	
June/July/Aug	15.7	25•7	18.9	
Sept/Oct/Nov	22.9	32.2	26.0	
Total	17.9	29.4	21.7	

#### The period 1955-61

These figures reveal the significantly greater advantage resulting from being born in the quarter September/October/November as opposed to the corresponding disadvantage resulting from being born in the quarter June/July/August, although such a disadvantage is apparent. No distinction is noted in the case of those born in the six month period December - May and the season of birth effect associated with being born in the period June/July/August whilst greater than that relating to pupils born in the preceding six months is not statistically highly significant. The advantage resulting

<sup>215.</sup> The figures on a termly basis are: Spring term - 16.4%; Summer term - 15.3%; Autumn term - 18.5%.

from being born in the Autumn by comparison with being born in the Summer is seen in the fact that 22.9% of all pupils born in the September quarter gained two passes or more whilst only 15.7% of those born in the June quarter did so.

It should be noted that the advantage resulting from being born in the quarter September/October/November in respect of gaining two passes or more is just as great as was found to be the case for pupils born in the same quarter who passed in three subjects or more.

#### The period 1962-65

The pattern of results for the period after streaming ended is different from that before streaming ended. The advantage resulting from being born in the September quarter has given way to a disadvantage associated with being born in the period June/July/August. (216) In short, whereas in the period before streaming ended, there was little difference between the figures for the nine months other than September/October/November, a tendency is now seen for those born in the period June/July/August to be more greatly disadvantaged than those born in other quarters.

Nevertheless, the disadvantage associated with being born in the period June/July/August in respect of gaining two passes or more is significantly less than the case of pupils who were born during this quarter in respect of passing in three or more subjects.

#### The period 1955-65

These results indicate the advantage accruing to pupils born in the quarter September/October/November in respect of gaining two passes or more in distinction to the disadvantage accruing to pupils born in the quarter June/July/August in failing to gain two or more passes, although this is

<sup>216.</sup> The percentage relating to the period June/July/August is 3.7% below the mean for the whole group whereas that associated with the quarter September/October/November is 2.8% above the mean and is not significantly larger than the percentage associated with those born in the quarter March/April/May.

apparent. (217) The season of birth effect relating to those born in the nine month period December - August inclusive, whilst apparent, is not highly significant and the distinct advantage of being born in the Autumn quarter is obvious when it is noted that 26.0% of all pupils born in this quarter gained two passes or more whereas only 18.9% of those born in the quarter June/July/August did so.

By comparison with the previous analyses relating to pupils passing three or more and four or more subjects, the advantages accruing to the Autumn born pupil in gaining two passes or more appears to be just as great during the whole of the ll-year period.

When the figures are presented on a termly basis for the period 1955-65, the distinction between the achievements of those born in the Spring and Summer terms is not very apparent. Indeed, it appears to be a matter of small consequence whether a pupil is born in the Spring or the Summer term. The benefit is that which accrues to those born in the Autumn term, which is very obvious. (218)

	Pupils gainin	g one pass o	or more as a
	percentage	of the origi	nal intake
Quarter of birth	1955-61	<u> 1962-65</u>	<u> 1955-65</u>
Dec/Jan/Feb	22.9	40.1	28.5
Mar/Apl/May	22.1	41.6	28.4
June/July/Aug	23.1	33.2	26.3
Sept/Oct/Nov	28.3	41.9	32.9
Total	24.0	39.2	28.9

<sup>217.</sup> This is reflected in the fact that the percentage of pupils born in the quarter September/October/November who were successful is 4.3% above the mean value for the whole sample by comparison with the percentage relating to those born in the quarter June/July/August which is 2.8% below.

<sup>218.</sup> The figures for the termly analysis are as follows: Spring term - 20.9%; Summer term - 20.0%; Autumn term - 24.1%.

#### The period 1955-61

The advantage associated with being born in the quarter September/
October/November is again indicated, the percentage of Autumn born who were
successful being 4.3% above the mean value for the whole group. There is,
however, no obvious distinction between the achievement of those pupils
born at other times of the year. The Summer born are, in particular, not
seen to be disadvantaged by comparison with those born in the early or
late Spring.

In spite of the fact that there is such an obvious advantage accruing to pupils born in the September quarter in respect of passing in one or more subjects, the advantage is less significant than it was in respect of the same pupils passing in two or more subjects.

#### The period 1962-65

These figures indicate the significant disadvantage accruing to pupils born in the period June/July/August compared with those born at all other times of the year. There is no indication, however, of an advantage accruing to those born in the period September/October/November and the percentages relating to all pupils except those who were Summer born are higher than the mean value for the whole group. That relating to the Summer born is, however, 6% lower than the mean for the whole group.

It should also be noted that the disadvantage accruing to the Summer born in passing one or more subjects is slightly more significant than that experienced by the same group of pupils in passing two or more subjects.

#### The period 1955-65

The figures in this table confirm what has been observed in the previous four tables relating to this period, with 32.9% of pupils born in the September quarter gaining one pass or more compared with an average of 28.9% for the whole intake and an average of only 26.3% for pupils born in the June quarter.

Nevertheless, the advantage associated with being born in the September quarter in respect of passing one or more subjects is not so significant as was the advantage noted in respect of the same group of pupils passing in two or more subjects.

This table shows clearly that whilst there is little difference between the achievements of those born in the quarters included in the period January - May inclusive, a distinction has to be drawn in the case of pupils born in the period June - August inclusive. This is apparent in all the tables considered which relate to the whole of the period 1955-65 and indicates that this group of pupils is, for some reason, at some disadvantage compared with pupils born in the earlier part of the school year. This group, in fact, contains pupils who may have had one year less schooling than others born earlier in the school year by the time they transfer to the secondary school, and certainly many will have had two terms less schooling in the primary school.

The figures relating to the same analysis on a termly basis show that there is not so great a difference between the results on a quarterly basis and those on a termly basis as was noted in the previous tables.

Pupils gaining one pass or more as a percentage of the original intake

Term of Birth	<u> 1955-65</u>	
Spring	28.4	
Summer	27.4	Mean: 28.9%
Autumn	31.2	

The hierarchical tendency which is apparent in both quarterly and termly tables indicates that pupils born in the Autumn term have more success in 'O' level examinations than those born in the Spring term and those born in the Spring term are more successful than those born in the Summer term.

#### General Observations

The period 1955-61 - During the time that the school was streamed, those pupils born in the period September/October/November achieved relatively more significant results at 'O' level than those born in any other quarter irrespective of the number of subjects considered. (219) Indeed, during the period 1955-61 it was without exception the case that the percentage of those born in the quarter September/October/November who gained various numbers of passes, expressed cumulatively, was significantly greater than the mean percentage for the whole sample and almost without exception the case that the percentages of those born in any other quarter were below the mean value for the whole sample.

Before streaming was abandoned, therefore, the season of birth effect is most noticeable in relation to the benefits accruing to the Autumn born as opposed to the disadvantages accruing to the Summer born, which were not apparent when the analysis was conducted on a quarterly basis.

The period 1962-65 - During the period after streaming ended, it may be deduced that those pupils born in the period June/July/August were significantly less successful at 'O' level, irrespective of the number of subjects considered, than those born at other times of the year. (220) Whilst the advantages accruing to the Autumn born are to be seen, they are not as significant as they were in the earlier period. Without exception it is the case that the percentage of those born in the June quarter who gained various numbers of passes, expressed cumulatively, is significantly lower than the mean percentage for the whole intake and, without exception, below the mean value to a greater extent than the percentage relating to the Autumn born is higher than the mean value.

<sup>219.</sup> Note, however, that this statement relates to the number of subjects considered on a cumulative basis. i.e. x or more subjects as opposed to x subjects only. See the further analysis later in this section dealing with a non-cumulative approach for which the above statement is not true.

<sup>220.</sup> Again it must be pointed out that this statement refers to numbers of subjects expressed cumulatively and not to specific numbers such as one, two, three or four.

The season of birth effect, after streaming ended is, in other words, most noticeable in relation to the Summer born, who are disadvantaged, as opposed to the Autumn born who are advantaged, but not significantly so as when the school was streamed.

The period 1955-65 - Considering the 11-year period as a whole, it may be said that pupils born in the September quarter stood a better chance and those born in the June quarter a less chance of being successful in 'O' level examinations than did pupils born at other times of the year, irrespective of the number of passes adopted as the criterion of achievement, provided it is understood that they are expressed cumulatively. The difference in positive achievement between the Summer born and the Autumn born is, however, greatest with regard to those pupils who gained four or more passes and least in relation to those who gained one pass or more. This is seen in the following table, the second column of which shows the differences between the percentages of pupils who were born in the quarter September/ October/November and the quarter June/July/August who were successful in gaining various numbers of passes. The third column represents this difference as a percentage of the mean percentage for the whole group.

	% difference between Autumn and Summer born	% difference mean %	100
5 or more passes	2.9	34•9	
4 or more passes	5.1	42.1	
3 or more passes	5 <b>.</b> 7	33.9	
2 or more passes	7.1	32 <b>.7</b>	
1 or more passes	6.6	22.8	

The maximum season of birth effect would appear to be associated with those pupils who gained four or more passes and the minimum effect with those who gained one pass or more, if the 1955-65 period is considered as a whole.

The preceding analyses have all been conducted on the basis of numbers of subjects passed by pupils, expressed cumulatively (i.e. x or more subjects). The following tables indicate the percentage of pupils born in the various quarters of the year who were successful in passing various numbers of subjects, expressed non-cumulatively.

percentage of the original intake	Pupils ga	inir	ng fo	our	passes	s as	a
	percentage	of	the	or	iginal	inta	ak e

Quarter of birth	<u> 1955-61</u>	<u> 1962<b>-</b>65</u>	<u> 1955-65</u>
Dec/Jan/Feb	4.9	4.1	4.6
Mar/Apl/May	2.4	4.9	3.2
June/July/Aug	2.1	4.2	2.8
Sept/Oct/Nov	4.3	6.3	5.0
Total	3.3	4.8	3.8

## Pupils gaining three passes as a percentage of the original intake

Quarter of birth	1955-61	<u> 1962<b>-</b>65</u>	1955-65
Dec/Jan/Feb	<b>3.</b> 9	4.9	4.2
Mar/Apl/May	4.5	7.7	5•5
June/July/Aug	3 <b>.</b> 9	4.6	4.1
Sept/Oct/Nov	3.3	5.6	4.7
Total	4.2	<del></del> 5•7	4.7

## Pupils gaining two passes as a percentage of the original intake

Quarter of birth	1955-61	<u> 1962<b>-</b>65</u>	1955-65
Dec/Jan/Feb	2.7	6.8	4.1
Mar/Apl/May	4.7	6.1	4.9
June/July/Aug	3.3	7.4	4.6
Sept/Oct/Nov	5.0	7.8	6.0
Total	<del></del> 3.8	7.1	4.9

## Pupils gaining one pass as a percentage of the original intake

Quarter of birth	1955-61	<u> 1962-65</u>	<u> 1955-65</u>
Dec/Jan/Feb	6.0	12.2	8.0
Mar/Apl/May	5 <b>.</b> 4	9•9	6.9
June/July/Aug	7.4	7.5	7.4
Sept/Oct/Nov	5 <b>.</b> 4	9•7	6.9
Total	6.1	9.8	7.2

It would appear that those born in the quarter September/October/
November stood a better chance than those born in other quarters of passing
in five or more subjects and in four subjects only, after streaming ended
and over the whole of the 11-year period. This was not the case, however,
in the case of pupils passing in one subject, or three subjects, during any
period and not the case for four subjects only in the period when the
school was streamed. Indeed, the Autumn born stood the least chance of
passing in three subjects only during the period when the school was
streamed and of passing in two subjects only in any period by comparison
with those born in other quarters.

It is also the case that those born in the quarter June/July/August stood the least chance of gaining five subjects or more, four subjects only and three subjects only during all periods with one exception. The Summer born were not, however, with one exception, the least disadvantaged in respect of gaining one pass or two passes only during any period.

The advantage and the disadvantage seen to accrue in relation to the Autumn born and the Summer born respectively in every one of the former analyses, where the subjects were considered cumulatively, arise to some extent from the fact that the season of birth effect appears more dominant when larger numbers of subjects are considered and that this effect, being most apparent when five or more subjects and four subjects only are consi-

dered, tends to show itself throughout the succeeding analyses in the cases where three or more, two or more and one or more subjects are being considered.

It would, therefore, probably be more correct to say that the advantage accruing to those born in the Autumn period and the disadvantage accruing to those born in the June quarter are most significant in relation to pupils passing in four, five, six, seven and eight subjects and not so significant in relation to one, two and three subjects.

Whether the numbers of pupils passing various numbers of subjects expressed cumulatively or otherwise are considered, it is apparent that a season of birth effect was operative during the periods when the school was streamed and after streaming ended. The effects differ somewhat, however, during the two periods, and, generally speaking, it is true that after streaming ended, the season of birth effect was not so pronounced in the sense that no single group of pupils was as disadvantaged or advantaged as a consequence of being born at a particular time of the year, as were certain pupils in the period when the school was streamed. (221)

Equally important in revealing a season of birth effect are the figures relating to pupils born at various times of the year who gained no passes at '0' level. In this respect the following categories of pupils are worthy of consideration:

- (a) all pupils who completed the fifth year whether entered for 'O' level examinations or not
- (b) all pupils who completed the fifth year and were entered for 'O' level examinations
- (c) all pupils in the original intake whether they completed the fifth year or not.

<sup>221.</sup> This can be seen if a comparison is made between the deviations from the mean of the percentages associated with those born in the various quarters and gaining various numbers of passes, expressed as a percentage of the mean percentage for the whole group in the periods 1955-61 and 1962-65. It is important to understand that the statement in the text is only true in relation to the total intake and ceases to be so when the analysis is continued to the fifth form group- see later in this section.

The analyses and observations which follow are devoted to a consideration of these three categories of pupil. (222)

Pupils staying for five years who gained no passes, including those not entered, as a percentage of the original intake

Quarter of birth	1955-61	1962 <b>-</b> 65	<u> 1955-65</u>
Dec/Jan/Feb	12.4	15.4	13.4
Mar/Apl/May	15.6	15.3	15.5
June/July/Aug	16.5	19.9	17.6
Sept/Oct/Nov	9.5	11.0	10.0
Total	13.6	15.4	14.2

#### The period 1955-61

The figures in this table show a hierarchical tendency in the sense that pupils born in succeeding three monthly periods commencing at the beginning of the school year (in September) were the more likely to fail to gain any passes at all if they stayed for five years. That is to say, those born in the quarter September/October/November and who stayed for five years, stood a significantly better chance of leaving with some success at 'O' level compared with those born in any other quarter. This is reflected in the fact that only 9.5% of those born in the September quarter who stayed for five years gained no passes at all compared with 16.5% of those born in the Summer months June/July/August who did so.

#### The period 1962-65

After streaming ended, the situation changed somewhat in so far as the distinction in achievement between those born in the period December/
January/February and those born in the period March/April/May which was previously seen, disappeared entirely. After streaming ended, no advantage or otherwise appeared to result from being born in say December compared with say April or May.

<sup>222.</sup> See Tables 64/65/66 in Appendix i for precise figures relating to each annual intake over the whole period 1955-65.

Pupils born in the period September/October/November were, however, still seen to be more likely to leave school after five years with some passes to their credit and those born in the period June/July/August to leave with no passes to their credit compared with those born in other quarters. Before streaming was abandoned, however, those born in the September quarter were more advantaged than were those born in the June quarter disadvantaged in respect of leaving with no passes to their credit. After streaming ended, however, the Autumn born and the Summer born were seen to be advantaged and disadvantaged to the same extent by comparison with those born at other times of the year.

#### The period 1955-65

Considering the 11-year period as a whole, it is apparent that a smaller proportion of pupils born in the quarter September/October/November who stayed at school for five years failed to gain any passes at '0' level than pupils born in any other quarter of the year. Generally speaking, it may be said that the later in the academic year a pupil was born, irrespective of the form of organisation of the work groups (streamed or banded or unstreamed) the more likely he was to fail to gain any passes at '0' level. Pupils born in the June quarter are seen to be in a position of greatest disadvantage, 17.6% of these compared with an average of 14.2% for the whole sample and 10.0% for the Autumn born group, failing to gain any passes at all.

The analysis on a termly basis indicates a very similar state of affairs with those pupils born in the Autumn term being seen to be in a position of greatest advantage and those born in the Summer term in a position of least advantage.

## Pupils staying for five years who gained no passes, including those not entered, as a percentage of the original intake

Term of birth	<u> 1955<b>-</b>65</u>	
Spring	15.1	
Summer	16.3 <u>Mea</u>	<u>in</u> : 14.2%
Autumn	10.9	

## Pupils staying for five years who gained no passes (only those entered) as a percentage of the original intake

Quarter of birth	<u> 1955–61</u>	<u> 1962<b>-</b>65</u>	<u> 1955-65</u>
Dec/Jan/Feb	6.8	7.7	7.1
Mar/Apl/May	6.9	5•3	6.4
June/July/Aug	7.8	7.5	7.7
Sept/Oct/Nov	4.8	3.0	4.1
Total	6.6	<del></del> 5•9	6.4

#### The period 1955-61

Pupils born in the period September/October/November who entered the school during the period prior to the abandonment of streaming and remained for five years and who were entered for 'O' level examinations were more likely to avoid failing than pupils born in any other quarter. A pupil born in any of the six months December - May inclusive was no more advantaged than a pupil born in any other of the six months in question, but a pupil born in June/July/August was the more likely to leave school without any passes to his credit after being entered for 'O' level examinations than those born in any other quarter.

#### The period 1962-65

After streaming ended, the Autumn born pupil was still seen to be advantaged in the sense that he was less likely to leave with no passes to his credit after being entered for 'O' level examinations. Those born in

the period March/April/May and not those born in the period June/July/
August now were seen to be the more likely to leave with no passes to their
credit.

#### The period 1955-65

Considering the ll-year period as a whole, it is apparent that the advantage lies with pupils born in the period September/October/November, who if they stayed for five years and were entered for 'O' level examinations stood a better chance than those born at other times of the year of avoiding failure altogether. Although those born in the late Summer stood the least chance of avoiding failure, the disadvantage accruing to these pupils by comparison with those born in the period December - May is not statistically highly significant. The greater advantage is seen to lie with the Autumn born rather than a disadvantage lying with the Summer born.

If the figures in the last table are subtracted from those in the previous table, the following table results. This indicates the percentages of pupils in the original intake who remained at school for five years and who were not entered for any 'O' level examinations.

Pupils staying for five years who were not entered for '0' level examinations as a percentage of the original intake

Quarter of birth	1955-61	<u> 1962-65</u>	<u> 1955-65</u>
Dec/Jan/Feb	5.6	7•7	6.3
Mar/Apl/May	8.7	10.0	9.1
June/July/Aug	8.7	12.4	9•9
Sept/Oct/Nov	4.7	8.0	5•9
Total	7.0	9•5	7.8

The smallest of these differences in the column relating to the period 1955-65 (5.9%) relates to those pupils born in the September quarter, after which the differences tend to become progressively larger, reaching a maximum value of 9.9% in the case of pupils born in the period June/July/August.

This indicates that pupils born in the period September/October/November who remained at school for five years were the more likely to be entered for 'O' level examinations, whilst pupils born in the period June/July/ August even if they entered the fifth form, did not stand as good a chance of being entered as did those born at other times of the year. Even if entered, the pupils born in the late Summer were more likely to gain no passes than pupils born in any other quarter of the year.

The figures on a termly basis are as follows and confirm the advantage accruing to those pupils born in the Autumn term.

Pupils staying for five years who gained no passes (only those entered) as a percentage of the original intake

Term of birth	<u> 1955–65</u>		
Spring	7.4		
Summer	6.8	Mean:	6.4%
Autumn	4.7		

Pupils gaining no passes at '0' level, including those who did not enter the fifth form as a percentage of the original intake

Quarter of birth	<u> 1955-61</u>	1962-65	1955-65
Dec/Jan/Feb	77.1	60.0	71.5
Mar/Apl/May	77•9	58.4	71.6
June/July/Aug	78.8	66.8	73.7
Sept/Oct/Nov	71.7	58.1	67.1
Total	76.5	60.8	71.1

#### The period 1955-61

These figures indicate that of all pupils born in the quarter September/October/November who entered the school during the period it was streamed, 71.7% left school without any 'O' level passes to their credit compared with

78.8% born in the period June/July/August who did so. The advantages accruing to the Autumn born outweigh the disadvantages accruing to the Summer born, as a comparison of their respective percentages with the mean value for the whole group indicates. There are, however, no significant differences in attainment between pupils born in the six month period December - May inclusive and no highly significant differences between the attainment of those born in this six month period and in the period June/July/August.

#### The period 1962-65

After streaming ended, the advantages accruing to those born in the September quarter, by comparison with those born in the succeeding six month period diminished somewhat, but the disadvantage associated with being born in the late Summer were still apparent, 66.8% of those born in the quarter June/July/August failing to gain any passes at '0' level compared with only 58.1% of those born in the quarter September/October/November who failed to do so.

#### The period 1955-65

These figures indicate that pupils who were born in the period June/
July/August and who entered the school during the 11-year period in question
were the more likely not to leave school with any passes at 'O' level to
their credit whilst pupils born in the period September/October/November
were the more likely to leave school with some 'O' level passes to their
credit. The difference between the chances of the Spring and Summer born
doing so were, however, not highly significant. It is, again, the advantage accruing to the pupils born in the Autumn term which appears to be the
more highly significant feature of this analysis.

Generally speaking, however, it may be said that pupils born in the period June/July/August not only do less well than others in terms of gaining specific numbers of passes at '0' level, but their chances of doing well, even if they are entered for '0' level examinations are not as good

as those of pupils born at other times of the year. The converse is even more true of pupils born in the period September/October/November.

The following table relating to the termly analysis confirms these conclusions and draws attention to the greater advantage accruing to the Autumn born as opposed to the disadvantage accruing to the Summer born, which, whilst apparent, is not so great by comparison with pupils born in the Spring term.

# Pupils gaining no passes at '0' level, including those who did not enter the fifth form, as a percentage of the original intake

Term of birth	<u> 1955–65</u>		
Spring	71.6		
Summer	72.6	Mean:	71.1%
Autumn	68.8		

The following tables indicate the difference between the proportions of pupils born in the various terms and quarters who entered the school during the 11-year period 1955-65 and who gained no passes at '0' level and the mean values for the group as a whole. (223) It is noticeable how the maximum season of birth effect occurs in relation to pupils born in the Autumn and Summer terms in the first of the tables which follow and in relation to those born in the quarters June/July/August and September/October/ November in the second table.

<sup>223.</sup> These figures are derived from the tables used in the earlier analyses in this section.

Differences between proportions born in various terms and the mean value for the whole group

	Spring	Summer	Autumn
No passes (all who stayed for five years)	+ 0.9	+ 2.1	- 3.3
No passes (only those entered)	+ 1.0	+ 0.4	- 1.7
No passes (all in original intake)	+ 0.5	+ 1.5	- 2.3

## Differences between proportions born in various quarters and the mean value for the whole group

	Dec/Jan/Feb	Mar/Apl/May	Jun/Jul/Aug	Sep/Oct/Nov
No passes (all who stayed for five years)	- 0.8	+ 1.3	+ 3.4	- 4.2
No passes (only those entered)	+ 0.7	0.0	+ 1.3	- 2.3
No passes (all in original intake)	+ 0.4	+ 0.5	+ 2.6	- 4.0

The figures in both tables highlight the advantage accruing to pupils born in the Autumn term compared with all other pupils and indicate how much more the Autumn born pupils are advantaged in relation to those born at other times of the year by comparison with the extent to which Summer born pupils are disadvantaged in relation to those born at other times of the year. In other words, it is more advantageous to be born in the first three months of the school year than it is disadvantageous to be born in the last three months of the same year.

The season of birth effect is even more obvious when viewed in relation to the group which remained at school for five years than it is when seen in relation to the whole of the intake. In other words, if the whole of the intake is considered in respect of '0' level achievement, as was done in the preceding analyses, the season of birth effect, whilst significant,

is not so pronounced as when the achievements at '0' level are considered in relation to the fifth form group only. (224)

The additional significance is revealed in the following tables which indicate the numbers of pupils born in the various quarters who gained the numbers of 'O' level passes indicated which are then expressed as a percentage of the total number of pupils in the fifth form who were born in the same quarter.

Pupils gaining five passes or more as a (225) percentage of numbers in the fifth form

Quarter of birth	<u> 1955<b>-</b>61</u>	1962 <b>-</b> 65	1955-65
Dec/Jan/Feb	15.4	21.9	18.2
Mar/Apl/May	14.4	22.8	17.9
June/July/Aug	16.2	18.0	16.9
Sept/Oct/Nov	24.6	23.2	24.0
Total	17.4	21.5	19.1

Pupils gaining four passes or more as a percentage of numbers in the fifth form

Quarter of birth	1955-61	<u> 1962-65</u>	<u> 1955–65</u>
Dec/Jan/Feb	29.1	29.2	29.2
Mar/Apl/May	20.7	31.5	25.2
June/July/Aug	21.6	25.8	23.2
Sept/Oct/Nov	36.0	35.2	35.7
Total	26.4	30.4	28.1

<sup>224.</sup> This was also found to be the case when a chi-squared test was applied to the numbers of pupils gaining various numbers of passes in the earlier part of the present section.

<sup>225.</sup> These figures indicate, for instance, that 24.0% of all pupils born in the September quarter who entered the school, and eventually the fifth form, during the period 1955-65 gained five passes or more compared with only 16.9% of those in the fifth form who were born in the quarter June/July/August who gained five passes or more.

These figures indicate, for example, that 36.0% of all pupils born in the September quarter who were in the fifth form during the period when the school was streamed (1955-61) gained four passes or more at '0' level compared with only 21.6% of those born in the June quarter who did so. After streaming ended, the difference between the achievements of the two groups are not so obvious, though they are still significant.

Pupils gai	ning	three	pass	ses	or	more	as	a
percentage	of 1	numbers	in	the	fi	lfth	form	<u>n</u>

Quarter of birth	1955-61	<u> 1962-65</u>	1955-65
Dec/Jan/Feb	40.1	38.0	39.2
Mar/Apl/May	32.7	45.0	37.8
June/July/Aug	31.4	34.4	32.5
Sept/Oct/Nov	47.4	45.6	46.7
Total	<del>37.5</del>	40.8	38.8

These figures indicate that 47.4% of all pupils born in the September quarter who were in the fifth form during the period when the school was streamed gained three passes or more at '0' level compared with only 31.4% of those born in the June quarter who did so. After streaming ended, the difference in achievement between the two groups is diminished, whilst pupils born in the March quarter appear to be as highly advantaged as those born in the September quarter. (226)

Pupils gaining two passes or more as a percentage of numbers in the fifth form

Quarter of birth	1955-61	1962-65	<u> 1955-65</u>
Dec/Jan/Feb	47.8	50.4	48.9
Mar/Apl/May	44.2	55•7	49.0
June/July/Aug	39•7	48.4	43.1
Sept/Oct/Nov	60.6	60.8	60.7
Total	47.6	53.8	50.2

<sup>226.</sup> This is also apparent in the case of pupils passing in five or more subjects.

These figures indicate that 60.6% of all pupils born in the September quarter who were in the fifth form during the period when the school was streamed gained two passes or more compared with only 39.7% of those born in the June quarter who did so. After streaming ended, the disparity between the achievements of the two groups diminished, although it was still significant.

	Pupils gaining percentage of		r more as a the fifth form
Quarter of birth	1955-61	<u> 1962<b>-</b>65</u>	<u> 1955–65</u>
Dec/Jan/Feb	64.8	72.3	68.0
Mar/Apl/May	58 <b>.</b> 7	73.2	64.7
June/July/Aug	58 <b>.3</b>	62.5	59•9
Sept/Oct/Nov	74.9	79.2	76.7
Total	63.7	71.8	67.0

These figures indicate that the disparity in achievement between the Autumn and the Summer born during the period when the school was streamed did not diminish after streaming ended, the percentage difference between the two groups still being of the order of just over 16%. The season of birth effect, nevertheless, is not so powerful a factor in determining the achievements of the Summer and Autumn born as it appears to be in the preceding tables. It is, perhaps, more a matter of chance whether a pupil passes in one subject only, which in many cases would result from a single entry in a practical subject like Art, Music, Craft or Technical Drawing, than whether he passes in more than one subject, and is not so dependent on the time of the year he is born.

### Pupils gaining no passes (all who stay for five years) as a percentage of the fifth form

Quarter of birth	1955-61	1962-65	1955-65
Dec/Jan/Feb	35.2	27.7	32.0
Mar/Apl/May	41.3	26.8	35.3
June/July/Aug	41.7	37 <b>•5</b>	40.1
Sept/Oct/Nov	25.1	20.8	23.3
Total	<del>36.</del> 3	28.2	33.0

These figures indicate that only 25.1% of all pupils born in the September quarter who were in the fifth form during the period when the school was streamed failed to gain any passes at '0' level compared with 41.7% of those born in the June quarter who failed to do so. After streaming ended the contrast between the achievements of the two groups of pupils was just as great as it was prior to the ending of streaming.

Pupils gaining no passes (only those entered) as a percentage of the fifth form

Quarter of birth	1955-61	1962-65	<u> 1955-65</u>
Dec/Jan/Feb	19.2	13.9	16.9
Mar/Apl/May	18.3	9.4	14.6
June/July/Aug	19.6	14.1	17.5
Sept/Oct/Nov	12.6	5 <b>.</b> 6	9.7
Total	17.6	10.8	14.8

These figures indicate that only 12.6% of all pupils born in the September quarter who were in the fifth form during the period when the school was streamed and were entered for '0' level, failed to gain any passes, by comparison with 19.6% of those born in the June quarter who were entered and failed to gain any passes. After streaming ended, the disparity in achievement was, if anything, increased and not diminished.

The following table brings out the advantage accruing to the Autumn born pupil compared with the pupil born at the end of the Summer term (227) and shows the percentage differences between the achievements of pupils born in the quarters September/October/November and June/July/August in respect of gaining various numbers of passes as previously indicated in the tables to be seen on the previous four pages.

	% difference between Summer and Autumn born	% difference mean %	x 100
5 or more passes	7.1	37.2	
4 or more passes	12.5	44.5	
3 or more passes	14.2	36.6	
2 or more passes	17.6	35.1	
1 or more passes	16.8	25.1	
O passes (only those entered)	7.8	52.7	
O passes (all who stay for 5 years)	16.8	50.9	

Whilst, generally speaking, it can be seen that a higher proportion of pupils born in the Autumn who remain at school for five years obtain significantly better results at 'O' level, by comparison with those born in the Summer, irrespective of the number of passes taken as the criterion, the above figures show that the differences between the positive achievements of the Summer and Autumn born are greatest in respect of those who gain four or more passes and least in the case of those who gain one or more passes. The greatest difference between the achievements of the two groups is, however, to be seen in respect of their ability to avoid failing to gain passes.

This suggests that the season of birth effect in positive terms is greatest in relation to pupils gaining four passes or more and that it

<sup>227.</sup> The converse statement which indicates the disadvantage accruing to the Summer born by comparison with those born in the Autumn would be just as admissible.

becomes progressively less of an influence as one moves towards the category of one pass or more. In other words, the greater the number of subjects being considered the more significant a part does the time of year at which a pupil is born play in the achievement.

A comparison of these results with those relating to the intake considered as a whole, indicates that a pupil born in the Autumn term and who remains at school for five years, increases his chance of being successful at 'O' level in relation to what it was at an earlier stage, compared with pupils born at any other time of the year, and particularly with those born in the Summer.

It is, therefore, more advantageous for a pupil born in the September quarter to remain at school for five years, than it would be for a pupil born in say March or, indeed, at any other time of the year. Conversely, it is least advantageous for a pupil born at the end of the school year to remain at school for five years in the sense that he will be less likely to benefit in terms of 'O' level achievements than other pupils. It is not only that he will be likely to achieve less than others, but by remaining at school he reduces his chances of achievement in the various categories of possible 'O' level passes in relation to what those chances were in the fourth year, in respect of the whole intake.

This is brought out in the following table which shows the percentage differences between pupils born in the quarters September/October/November and June/July/August in respect of gaining various numbers of passes when expressed as a percentage of the whole intake. (228) A comparison of these figures with those in the last table, relating to the fifth form group only, shows how, entry to the fifth form, increases the differences between the achievements of the two groups of pupils.

<sup>228.</sup> See the tables earlier in this section for details of the information on which the present table is based.

	% difference between Summer and Autumn born	% difference x 100
5 or more passes	2.9	34.9
4 or more passes	5.1	42.1
3 or more passes	5 <b>.7</b>	33•9
2 or more passes	7.1	<b>3</b> 2 <b>.</b> 7
l or more passes	6.6	22.8
O passes (only those entered)	3 <b>.</b> 6	56.3
O passes (all who stay for 5 years)	7.6	53•5

It is of interest to note that the relative advantages accruing to the Autumn born and the relative disadvantages facing the Summer born are greater in relation to gaining no passes at all than they are in relation to gaining specific numbers of subject passes. In other words, an Autumn born pupil's chances of gaining no passes at all compared with a Summer born pupil's chances of not gaining any passes is significantly greater than an Autumn born pupil's chances of gaining say four or more passes compared with the chances of a Summer born pupil gaining four or more passes. The converse statement, drawing attention to the reduced chances of the Summer born, by comparison with the Autumn born, is equally valid, although a consideration of the achievements of the Autumn born in relation to the mean values for the whole intake suggest that this group is more positively advantaged than is the other group negatively disadvantaged.

#### SUCCESS AT 'O' LEVEL - SELECTIVE AND NON-SELECTIVE PUPILS

A previous investigator (229) found no appreciable difference in attainment at '0' level between Summer born and Autumn born children in grammar schools whether they were streamed, unstreamed or setted, whilst another investigator found that in secondary modern schools, Autumn born children obtained significantly better results. (230) It has been suggested that moreable children such as would enter the grammar school are able to overcome the adverse effects of less schooling at the junior school stage, whereas Summer born children who go to secondary modern schools are not able to do so.

In an attempt to discover whether a season of birth effect was apparent in relation to the group of selective pupils (grammar school equivalent) and to the group of non-selective pupils (modern school equivalent), considered separately, analyses were conducted for the whole of the 11-year period 1955-65.

The following data relates only to selective pupils who were entered for 'O' level examinations at the end of their fifth year in school. (231)

<sup>229.</sup> Armstrong H.G., op.cit.

<sup>230.</sup> Sutton P., op.cit.

<sup>231.</sup> See Tables 71, 72 and 73 in Appendix i.

#### SELECTIVE PUPILS ONLY

Observed frequencies

Quarter	I	Number of pa	sses at '0'	Level
of Birth	0	1, 2 or 3	4 or more	Totals
12/1/2	20	68	72	160
3/4/5	26	85	74	185
6/7/8	27	68	64	159
9/10/11	16	77	91	184
Totals	89	298	301	688

Expected frequencies

Quarter	Number of passes at '0' level			
of Birth	0	1, 2 or 3	4 or more	Totals
12/1/2	21	69	70	160
3/4/5	24	80	81	185
6/7/8	21	69	69	159
9/10/11	23	80	81	184
Totals	89	298	301	688

A chi-square of 6.75 results which is not significant, although a tendency is noted for selective pupils born in the Autumn to do better than those born at other periods and a tendency, less obvious, for selective pupils born in the Summer to do less well.

Further analyses were conducted to discover whether any season of birth effect was noticeable in the periods before and after streaming ended, considered separately. For the period 1955-61, a chi-square of 11.98 resulted which is almost significant at the five per cent level of 12.592 and is more significant than the value obtained for the whole of the period 1955-65, previously considered. For the period 1962-65, a value of only 3.45 resulted which is less significant than that relating to the whole of the period 1955-65.

These results appear to indicate that unstreaming was accompanied by a reduction in the season of birth effect for selective pupils (232) in the sense that those born in the September quarter were not as advantaged in 'respect of success at 'O' level, after streaming ended as they were in the earlier period by comparison with the achievements of those selective pupils born in other quarters of the year. Selective pupils born in the Summer were, however, still slightly at a disadvantage compared with selective pupils born at other times of the year.

Corresponding analyses were carried out in respect of the group of non-selective pupils who were entered for 'O' level examinations. The data relates to the whole of the ll-year period 1955-65.

<sup>232.</sup> It must not be too readily assumed that this was the direct consequence of unstreaming.

#### NON-SELECTIVE PUPILS ONLY

Observed frequencies

Quarter	Number of passes at 'O' level			
of Birth	0	1, 2 or 3	4 or more	Totals
12/1/2	34	56	21	111
3/4/5	26	56	16	98
6/7/8	31	54	13	98
9/10/11	13	46	16	75
Totals	104	212	66	382

Expected frequencies

Quarter	Number of passes at 'O' level			
of Birth	0	1, 2 or 3	4 or more	Totals
12/1/2	30	62	19	111
3/4/5	27	54	17	98
6/7/8	27	54	17	98
9/10/11	20	42	13	75
Totals	104	212	66	382

A chi-square of 6.54 results which compared with the value of 17.23 previously found for the whole group of selective and non-selective pupils taken together over the same period, is not significant, (233) although a tendency is still to be observed for Autumn-born non-selective pupils to achieve better results at 'O' level by comparison with other non-selective pupils born at other times of the year.

This result, together with the previous one relating to the selective group, implies that the season of birth effect in relation to '0' level achievement is only statistically significant when the age group is considered as a whole and not divided into separate categories of selective and non-selective pupils.

<sup>233.</sup> See Section 2(b) in the present Chapter.

A further analysis relating to non-selective pupils in the periods before and after the ending of streaming produced a chi-square of 7.00 for the period 1955-61 and a value of 9.46 for the period 1962-65. Both of these are larger than the value obtained for the whole of the ll-year period 1955-65, which was 6.54, though neither is statistically significant at the five per cent level. Nevertheless, there is a tendency in the period after streaming ended for non-selective pupils born in the September quarter to do better at '0' level than those born in any other quarter, although a corresponding disadvantage accruing to the Summer born is not so apparent as in the case of the selective group.

These results do not indicate a highly significant tendency for non-selective pupils to be subject to a season of birth effect either in the period before or after streaming ended or during the whole of the ll-year period. What tendency there is, indicates the advantage accruing to the Autumn-born child rather than a disadvantage accruing to the Summer-born in contrast with what was found in the case of selective pupils. It must be borne in mind, however, that the group of selective pupils was subject to 'creaming' because of the existence of the direct grant schools and that the analysis relating to this group is not, therefore, strictly comparable with others carried out elsewhere with grammar school intakes. The selective pupils in our analysis would, if anything, be less-able by comparison with a typical grammar school intake. (234)

It must also be borne in mind that the analyses in this section relate only to pupils entered for 'O' level examinations and not to the whole group of selective and non-selective pupils. (235)

<sup>234.</sup> See Part One - V.R.Q. of Selective Pupils - page 5.

<sup>235.</sup> The reason for this being that the most highly significant results in previous analyses were found to be associated with the group of pupils entered for 'O' level examinations and not with the whole of the fifth year group which included those not entered. It may, therefore, safely be assumed that an analysis relating to the whole group of selective and non-selective pupils, considered separately, and including those not entered for 'O' level, would produce a less significant result than the one presented in this section.

#### PUPILS PLACED IN THE TOP AND BOTTOM STREAMS

#### The first year

Totals

A comparison was made of the numbers of pupils placed in the top and bottom streams in the first year, using data from all years 1955-65 inclusive, except for 1962, 1964 and 1965 in the case of top streams and 1965 in the case of bottom streams, there being no top and bottom streams in these years respectively. (236)

Observed frequencies

Quarter of Birth	Top Stream	Bottom Stream	Totals
12/1/2	51	32	83
3/4/5	58	47	105
6/7/8	59	37	96
9/10/11	62	26	88

230

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Expected frequencies

Top Stream	Bottom Stream	Totals
52	31	83
65	40	105
59	37	96
54	34	88
230	142	372

The chi-square test produced a value of 5.10 which, for the three degrees of freedom associated with this table, is not quite significant at the five per cent level. Nevertheless, there is an indication that the top streams did contain a slightly greater proportion and the bottom streams a smaller proportion of pupils born in the period September/October/November. This is to be expected in view of the previously noted tendency for selective pupils to be born during this quarter in proportionally larger numbers (237) and for top streams to contain by design a high proportion of selective pupils and for bottom streams never to contain selective pupils. (238)

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Also indicated is a slight tendency for pupils born in the period March/April/May to find themselves in the bottom stream in greater numbers than would be expected on a random distribution.

<sup>236.</sup> See Tables 67 and 68 in Appendix i.

<sup>237.</sup> See Chapter Two - Part 2.

<sup>238.</sup> See Chapter One - The organisation of work groups during the period 1954-61.

There is, however, no indication, at this stage that pupils born in the period June/July/August were disadvantaged in respect of being placed in the bottom streams.

A similar analysis conducted on a termly basis produced a chi-square of 2.61 which is less significant than that derived from the quarterly analysis. The reduction in the level of significance is related to the fact that elements in the array associated with the tendency for more Autumn born pupils to be in the top streams and for fewer to be in the bottom streams, do not play such a dominant part in the termly analysis as they do in the quarterly analysis. Nevertheless, a slight tendency, although not statistically significant, is to be seen for more Autumn born pupils to enter the top stream and a greater tendency is seen for them to avoid entering the bottom stream.

### The third year

A goodness of fit test applied to the data relating to pupils placed in the top and bottom streams at the commencement of their third year in the school (239) produced a value of 10.10 for the chi-square which is significant beyond the five per cent level of 7.815 and almost significant at the one per cent level of 11.345. This indicates a significant tendency for pupils born in the period September/October/November to find their way into the top stream by the end of the second year in greater proportions than pupils born in any other quarter. It also indicates a significant tendency for pupils born in this quarter not to be placed in the bottom stream at the beginning of the third year. At the same time, pupils born during the period June/July/August are seen to be the least likely to find their way into the top streams and the most likely to be placed in the bottom stream

by the end of their second year. This is in contrast with the situation existing at the beginning of the first year when they were not so disadvantaged. (240)

Observed frequencies

Expected	frequencies

Quarter of Birth	Top Stream	Bottom Stream	Totals
12/1/2	47	37	84
3/4/5	62	58	120
6/7/8	48	55	103
9/10/11	72	35	107
Totals	229	185	414

Top Stream	Bottom Stream	Totals
47	37	84
66	54	120
57	46	103
59	48	107
229	185	414

As these results are more significant than those in the preceding analysis in respect of first year placings, it would appear that the season of birth effect, under a system of streaming, not only influences the placement of certain pupils in their first year, but renders it more likely that by the time they have been in the school for two years and the original forms have been re-organised on the evidence of performance in schoolwork, that pupils born at particular times of the year will be further advantaged or disadvantaged.

A similar analysis carried out on a termly basis was carried out using the following data.

<sup>240.</sup> Perhaps the age-weighting in favour of younger pupils in the Moray-House tests may have offset any tendency for this to occur at that stage, since the results of these tests were used to place pupils in streams on entry to the school.

#### Observed frequencies

#### Expected frequencies

Term of Birth	Top Stream	Bottom Stream	Total
Spring	73	64	137
Summer	69	72	141
Autumn	87	49	136
Total	229	185	414

Top Stream	Bottom Stream	Total
76	61	137
78	63	141
75	61	136
229	185	414

The chi-square associated with this analysis is 6.88 which is significant at the five per cent level of 5.991. although slightly less significant by comparison with the value derived from the quarterly analysis. This is associated with the fact that the season of birth effects relating to pupils born in the period September/October/November and in the period June/July/August are greater than those relating to the performance of pupils born in the Autumn and Summer terms respectively.

By comparison with the chi-square of 2.61 associated with the previous analysis relating to first form pupils, this increased level of significance appearing at the third year stage, indicates that the season of birth effect has more influence in determining the composition of the top and bottom streams after pupils have been in the school for two years, under a system of streaming, than when they first enter the school. This confirms the findings in the previous section which were based on a quarterly analysis.

It may be concluded that whilst there is a tendency for pupils born in the Autumn Term to be placed in the top stream and to avoid being placed in the bottom stream, on entry to the school, after two years have elapsed, not only has this tendency increased but a new tendency for pupils born in the Summer Term to avoid the top stream and to be placed in the bottom stream, has emerged.

# PART FIVE

CONCLUSIONS

#### CONCLUSIONS

### Pupils completing the five year course of studies

- 1. A consideration of all pupils who entered the school in the period 1955-65 and who remained for five years revealed no statistically significant connection between the time of year at which a pupil was born and a tendency to complete the five year course of studies.
- 2. A consideration of all pupils who entered the school in the periods 1955-61 and 1962-65, during which the school was streamed and unstreamed respectively, revealed no significant connection between the time of year at which a pupil was born and a tendency to complete the five year course of studies in either period.
- 3. Whilst no statistically significant tendency was found for pupils born at particular times of the year to complete the five year course of studies in larger numbers than those born at other times of the year, a clear indication is seen over the period 1955-65, as a whole, that a higher proportion of each annual intake completing the five year course of studies consisted of those pupils born in the Spring and Summer terms. That is to say, pupils born in the period February August tended to enter the fifth form and to remain at school for five years in relatively greater numbers than those born in the period September January.
- 4. During the period 1955-61, when the school was streamed, the largest percentage of the total annual intake remaining at school for five years consisted of those pupils born in the Summer Term, whereas during the period 1962-65, after streaming ended, the largest percentage consisted of those born in the Spring Term.
- 5. During the two periods when the school was streamed and unstreamed, the smallest percentage of pupils remaining for five years consisted of those born in the Autumn Term.
- 6. It is unlikely that the last two results are connected with the form of organisation of the school and are more likely to arise as a consequence of the regulations relating to the date on which pupils on attaining the statutory leaving age were entitled to leave school during the two periods in question.

#### SUCCESS AT 'O' LEVEL - ALL PUPILS

# All pupils who completed the five year course irrespective of whether they were entered for '0' level examinations or not, (the period 1955-65)

- 1. The season of birth effect is most pronounced when viewed in relation to the achievements at 'O' level of the group of pupils which remained at school for five years and gives rise to the following conclusions
  - (a) a highly significant connection is found to exist between the time of year at which a pupil is born and the success achieved at '0' level. In particular, pupils born during the quarter September/October/November and who remained at school for five years were more likely to do well at '0' level (achieve 4 or more passes) than pupils born in any other quarter of the year.
  - (b) conversely, a pupil born in the quarter June/July/August who remained at school for five years was less likely to do well at '0' level than a pupil born in any other quarter.
  - (c) similar advantages and disadvantages, which were not so highly significant, were found to exist in the case of pupils born in the Autumn Term and Summer Term respectively.
  - (d) pupils born in the Summer Term and in the Autumn Term who stayed at school for five years were more and less likely, respectively, to leave school with no passes to their credit than pupils born in the Spring Term.
  - (e) a smaller proportion of pupils born in the quarter September/ October/November who stayed at school for five years failed to gain any passes at 'O' level than those born at any other time of the year.
  - (f) the later in the school year a pupil was born, irrespective of the form of organisation of the work groups, the more likely he was to fail to gain any passes at all.
  - (g) pupils born in the quarter September/October/November who remained at school for five years, whatever the form of organisation of the work groups, were the more likely to be entered for 'O' level examinations, whilst pupils born in the quarter June/July/August were less likely to be entered than those born in any other quarter.
  - (h) these conclusions imply that pupils born in the quarter June/July/August who remained at school for five years were less likely to be entered for 'O' level examinations and were more likely to gain no passes even if they were entered than pupils born in any other quarter.

- (i) conversely, pupils born in the Autumn were more likely to be entered for 'O' level examinations if they remained at school for five years and were less likely to leave school with no passes to their credit than pupils born at any other time of the year.
- (j) these results, in conjunction with subsequent ones, suggest that a quarterly analysis is of greater value in indicating the maximum season of birth effect than a termly analysis. This suggests that the greatest advantages and disadvantages accruing from season of birth do not relate to periods that coincide precisely with the school terms.
- (k) the main season of birth effects are seen to relate to pupils gaining four passes or more and no passes at all. those pupils gaining one, two and three passes appear to be relatively uninfluenced by the time of year at which they were born.

# All pupils who completed the five year course irrespective of whether they were entered for '0' level examinations or not (the period 1955-61)

- 1. A consideration of the 'O' level examination results of those pupils who entered the school during the period 1955-61, before streaming ended, reveals a highly significant season of birth effect which gives rise to the following conclusions
  - (a) a highly significant connection is found to exist between being born in the quarter September/October/November and doing well at 'O' level. Compared with pupils born in any other quarter, those born in the Autumn quarter were more likely to achieve passes in four or more subjects.
  - (b) a highly significant connection is found to exist between being born in the quarter June/July/August and doing less well at 'O' level. Compared with pupils born in any other quarter, those born in the Summer quarter were less likely to gain passes in four or more subjects
  - (c) the main difference between these last two results and those relating to the 11-year period 1955-65, lay in the fact that, during the period that the school was streamed, pupils born in the Autumn quarter were more advantaged than were those born in the Summer quarter disadvantaged in respect of 'O' level achievement
  - (d) similar advantages and disadvantages which were significant, but not so highly significant, were found to exist in the case of pupils born in the Autumn Term and the Summer Term respectively
  - (e) pupils born in the quarter September/October/November were more likely to be entered for 'O' level examinations than were those born in any other quarter

- (f) pupils born in the quarter September/October/November were less likely to leave school with no passes at 'O' level to their credit and those born in the quarter June/July/August were more likely to leave school with no passes to their credit than those born in any other quarter
- (g) pupils born in the Autumn quarter were more advantaged than were those born in the Summer quarter disadvantaged in respect of leaving school with no passes to their credit.

# All pupils who completed the five year course irrespective of whether they were entered for '0' level examinations or not (the period 1962-65)

- 1. A consideration of the '0' level results of those pupils who entered the school during the period 1962-65, after streaming ended, indicates no statistically significant connection between being born at a particular time of the year and achievement at '0' level. What indications there are of a season of birth effect are as follows:
  - (a) after streaming ended, pupils born in the quarter September/October/November still stood a better chance of leaving school with some passes to their credit compared with those born in any other quarter
  - (b) after streaming ended, pupils born in the quarter June/July/ August stood a higher chance of leaving school with no passes to their credit compared with those born in any other quarter
  - (c) pupils born in the Autumn and Summer quarters described above were now seen to be advantaged and disadvantaged to the same extent by comparison with those born in other quarters
  - (d) pupils born in the Autumn Term, considered as a whole, were more likely to leave school with some 'O' level passes to their credit by comparison with pupils born in the Spring and Summer Terms
  - (e) the ending of streaming did not eradicate the earlier tendency for pupils born in the quarter June/July/August, who completed the five year course, not to be entered for 'O' level examinations by comparison with those born in other quarters of the year
  - (f) after streaming ended, the season of birth effect, in the case of pupils completing the five year course, does not appear as statistically significant, whereas, before streaming ended, it was highly significant.

#### Pupils entered for '0' level examinations only (the period 1955-65)

- 1. A consideration of the 'O' level examinations results of those pupils who entered the school during the ll-year period 1955-65 and who were subsequently entered for 'O' level examinations reveals a significant connection between being born at particular times of the year and success achieved at 'O' level which is expressed in the following conclusions
  - (a) pupils born in the quarter June/July/August were less likely to leave school with four or more passes to their credit than pupils who were born in other quarters of the year
  - (b) pupils born in the quarter September/October/November were more likely to leave school with four or more passes to their credit than pupils who were born in other quarters of the year
  - (c) a similar advantage, of a statistically significant nature, to that indicated in (b) above was found to exist in relation to pupils born in the Autumn Term considered as a whole by comparison with pupils born in other school terms. This confirmed the previous conclusion that the connection between season of birth and success at 'O' level is associated less with a division of the year into school terms than with certain quarters of the calendar.
  - (d) pupils born in the quarter September/October/November stood a better chance of avoiding failure in '0' level examinations than did those born in any other quarter.
  - (e) pupils born in the quarter June/July/August were more likely to leave school with no passes to their credit than pupils born in any other quarter
  - (f) in respect of conclusions (d) and (e) above the greater advantage lay with the Autumn born pupils rather than a disadvantage lying with the Summer born
  - (g) the degree of significance of these results is not so high as was the case when all the pupils in the fifth form were included in the analyses, but, nevertheless, the relationship between season of birth and achievement at 'O' level is significant
  - (h) these results imply that a pupil born in the Autumn Term who remained at school for five years, was the more likely to be entered for 'O' level examinations and, having been entered, to do well, compared with a pupil born in any other term.
  - (i) conversely, a pupil born in the Summer Term was less likely to be entered for '0' level examinations and was less likely to do well even if he was entered than a pupil born in any other term.

### Pupils entered for '0' level examinations only (the period 1955-61)

- 1. A consideration of the examination results of those pupils who entered the school during the period 1955-61, when it was streamed, indicates a significant connection between season of birth and achievement at 'O' level, which gives rise to the following conclusions
  - (a) pupils born in the quarter September/October/November were more likely to achieve good results (four or more passes) than pupils born in any other quarter
  - (b) pupils born in the quarter June/July/August were less likely to achieve good results than pupils born in any other quarter, although the disadvantage accruing to these pupils was not as great as the advantage accruing to the Autumn born and indicated in (a) above
  - (c) pupils born in the quarter September/October/November were more likely to avoid failing altogether at 'O' level than pupils born at any other time of the year whilst pupils born in the quarter June/July/August were more likely to gain no passes than other pupils
  - (d) pupils born in any of the six months December May inclusive were no more advantaged or disadvantaged than pupils born in any of the six months in question in respect of leaving school with no passes to their credit after sitting 'O' level examinations
  - (e) no statistically significant advantage or disadvantage was found to exist in the case of pupils born in the Autumn and Summer Terms considered as wholes. There was, however, an indication that the season of birth effect observed when the analyses were conducted on a quarterly basis was operative in respect of pupils born in the Autumn and Summer Terms, although this did not appear as statistically significant.

#### Pupils entered for '0' level examinations only (the period 1962-65)

- 1. A consideration of the '0' level results of those pupils who entered the school during the period 1962-65, after streaming ended, indicates no statistically significant connection between season of birth and achievement at '0' level. What indications there are of a season of birth effect are as follows
  - (a) pupils born in the quarter September/October/November appeared to be less likely to leave school with no passes to their credit than those born at other times of the year
  - (b) pupils born in the quarter June/July/August appeared slightly disadvantaged in respect of being more likely to leave school with no passes to their credit

- (c) after streaming ended, the advantage and disadvantage previously noted of pupils born in the Autumn and Summer quarters being more and less likely, respectively, to gain four or more passes, disappeared completely
- (d) no statistically significant advantage or otherwise was apparent, after the ending of streaming, in respect of pupils born in the Autumn and Summer terms respectively
- (e) pupils born in the quarter December/January/February were seen to be equally disadvantaged as those born in the quarter June/July/August in respect of failing '0' level altogehter after streaming ended
- (f) the most noticeable effect associated with the ending of streaming was the elimination of the earlier tendency for Summer born and Autumn born pupils to do less well and better respectively in gaining four or more passes
- (g) the ending of streaming did not have as great an influence in reducing the season of birth effect associated with pupils entered for 'O' level examinations as it did in the case of pupils who remained at school for five years whether entered for 'O' level examinations or not.

# All pupils who remained at school until they reached, at least, the statutory leaving age (the period 1955-65)

- 1. A consideration of the examination results of all pupils who entered the school during the period 1955-65, revealed a significant connection between season of birth and success at '0' level. In particular
  - (a) pupils born in the quarter September/October/November were seen to be more likely to do well at 'O' level, particularly in respect of gaining four or more passes and in avoiding leaving school with no passes to their credit compared with pupils born in other quarters
  - (b) pupils born in the quarter June/July/August were seen to be less likely to do well at 'O' level, particularly in respect of gaining four passes or more compared with other pupils
  - (c) the advantage accruing to those born in the Autumn period in respect of avoiding leaving school with no passes to their credit is more significant than the disadvantage accruing to those born in the Summer period, whether the analysis is conducted on a quarterly or a termly basis

- (d) the relationship between season of birth and success at 'O' level is not so significant when all pupils who entered the school are included in the analysis as when pupils in the fifth form or those who were entered for 'O' level examinations only are considered
- (e) no statistically significant advantage or disadvantage is apparent in the case of pupils born in the Autumn Term and Summer Term, respectively, by comparison with those born in the Spring Term when the analysis is conducted on a termly basis. Nevertheless, a tendency is noted for pupils born in the Summer Term to do less well and for those born in the Autumn Term to do better in respect of gaining four or more passes than those born in the Spring Term. Also noted is a tendency for those born in the Autumn Term to avoid obtaining no passes compared with other pupils
- (f) generally speaking, it may be affirmed of the whole group of pupils who entered the school in the period 1955-65, that those born in the period June/July/August not only did less well than others in gaining specific numbers of subject passes, but their chances of being entered for 'O' level examinations and their chances of doing well, if entered, were not as good as those of pupils born at other times of the year
- (g) generally speaking, the converse of conclusion (f) is equally true for pupils born in the period September/October/November

# All pupils who remained at school until they reached, at least, the statutory leaving age (the period 1955-61)

- 1. A consideration of the examination results of all pupils who entered the school in the period 1955-61, when the school was streamed, indicates
  - (a) a strong tendency, which is not statistically significant, for pupils born in the quarter September/October/November to be more successful in gaining passes in four or more subjects and a lesser tendency for such pupils to avoid failing altogether to gain any passes, compared with those born at other times of the year
  - (b) that pupils who were born in the quarter September/October/
    November, irrespective of whether they entered the fifth
    form or not, were less likely to leave without any 'O' level
    passes to their credit than pupils born in any other quarter
  - (c) that whilst pupils born in the quarter June/July/August were more likely to leave school with no passes to their credit, the disadvantage accruing to such pupils was not significant by comparison with those pupils' who were born in the preceding six month period.

# All pupils who remained at school until they reached, at least, the statutory leaving age (the period 1962-65)

- 1. A consideration of the examination results of all pupils who entered the school during the period 1962-65, after streaming ended, reveals no statistically significant connection between season of birth and success at '0' level. What indications there are of a season of birth effect are as follows
  - (a) pupils born in the quarter June/July/August were seen to do less well in all categories than those born at other times of the year
  - (b) after streaming ended, no indication is seen that those born in the quarter September/October/November were greatly advantaged by comparison with those born in other quarters
  - (c) a disadvantage associated with being born in the quarter June/July/August became more apparent, after streaming ended, as opposed to an advantage accruing to those born in the Autumn quarter.

# Pupils gaining various numbers of passes at '0' level, expressed cumulatively

- 1. A consideration of the numbers of pupils in the original intakes who were born at various times of the year and who gained various numbers of 'O' level subjects, confirmed that a connection existed between season of birth and performance at 'O' level. In particular, it was found that, during the period 1955-65
  - (a) the proportion of pupils born in the Autumn quarter who gained five or more passes was higher than the proportion born in any other quarter who did so
  - (b) the proportion of pupils born in the Autumn quarter who gained four or more passes was significantly higher than the proportion born in any other quarter who did so. A corresponding disadvantage accruing to those born in the Summer quarter was not seen to be as significant as the advantage associated with being born in the Autumn quarter
  - (c) success in gaining four or more passes varied inversely as the nearness of the time of birth of pupils to the commencement of the school year

- (d) the proportions of pupils born in the Autumn quarter and in the Summer quarter who gained three or more passes were correspondingly larger and smaller than the proportions of those born in other quarters who did so
- (e) the positive advantage accruing to those born in the Autumn quarter in passing in two or more subjects, in distinction to the disadvantage accruing to those born in the Summer quarter, although this is apparent
- (f) pupils born during the Autumn Term were advantaged in respect of passing in two or more subjects by comparison with those born in the other terms but no significant distinction is noted between those born in the Spring and Summer Terms
- (g) the proportions of pupils born in the Autumn quarter and in the Summer quarter who gained one pass or more were correspondingly larger and smaller, respectively, than the proportions of those born in other quarters who did so, the greater advantage lying with the Autumn born
- (h) pupils born in the Autumn Term were advantaged in respect of passing in one or more subjects compared with those born in other terms, but no significant distinction is noted between those born in the Spring and Summer Terms
- (i) speaking generally, pupils born in the quarter September/October/November and those born in the quarter June/July/August stood a better chance and a less chance of being successful at 'O' level than did pupils born in other quarters of the year, irrespective of the numbers of subject passes considered
- (j) the maximum season of birth effect is associated with those pupils who gained four or more passes and the minimum effect with those who gained one pass or more
- (k) the greatest difference in achievement between the Autumn and the Summer born is in respect of their ability to avoid failing to gain any 'O' level passes. The difference in positive achievement is greatest, however, in the case of pupils gaining four or more passes and least in the case of pupils gaining one pass or more
- (1) an Autumn born pupil's chances of gaining no passes at 'O' level compared with a Summer born pupil's chances of gaining no passes is significantly greater than an Autumn born pupil's chances of gaining four passes or more compared with the chances of a Summer born pupil doing so
- (m) it was more advantageous for a pupil born in the September quarter to remain at school for five years than it was for a pupil born at any other time of the year and least advantageous for a pupil born at the end of the school year to do so, in the sense of being more likely to benefit in terms of 'O' level achievements

- (n) a comparison of the results based on a quarterly analysis with those based on a termly analysis indicates that a factor is at work in relation to pupils born in the first three months of the school year that is not so influential throughout the whole of the four month period of the Autumn Term, as evidenced by the fact that it is of greater advantage to have been born in the quarter September/October/November in relation to other quarters than it is to have been born in the Autumn Term in relation to the other two terms
- (o) the larger the number of subject passes being considered, the more significant a part does the time of year at which a pupil is born play in the achievement. This implies that the season of birth effect is more significant in relation to pupils passing in larger numbers of subjects and who must, therefore, because of this, be regarded as the more able pupils
- (p) there was a greater difference between the results based on a quarterly analysis and those based on a termly analysis in the case of pupils passing in large numbers of '0' level subjects than in the case of those passing in smaller numbers, expressed cumulatively, implying that the factor referred to in conclusion (n) is more significant in the case of pupils of higher ability
- (q) the advantages accruing to the Autumn born and the disadvantages accruing to the Summer born that are found to exist when the numbers of subject passes achieved are considered cumulatively, arise to some extent from the fact that the maximum season of birth effect occurs in relation to pupils passing in four or more subjects and that this effect tends to influence the analyses relating to smaller numbers of subjects when they are expressed cumulatively

# Pupils gaining various numbers of passes at '0' level, expressed cumulatively

- 1. A consideration of the numbers of pupils in the original intakes who were born at various times of the year and who gained various numbers of 'O' level subjects during the period 1955-61, when the school was streamed, confirmed a connection between season of birth and performance at 'O' level. In particular, it was found that
  - (a) the proportion of pupils born in the Autumn quarter who gained five passes or more was significantly higher than the proportion born in any other quarter who did so
  - (b) the proportion of pupils born in the Autumn quarter who gained four passes or more was significantly higher than the proportion born in any other quarter who did so and very significantly higher than the proportions born in the late Spring and Summer quarters who did so

- (c) although the proportion of pupils born in the Autumn quarter who gained three or more passes was higher than the proportion born in other quarters who did so, the advantage accruing to the Autumn born was not as great as it was in respect of their gaining four or more and five or more subjects
- (d) the proportion of pupils born in the Autumn quarter who gained two passes or more was higher than the proportion born in any other quarter who did so
- (e) the proportion of pupils born in the Autumn quarter who gained one or more passes was higher than the proportion born in any other quarter, there being no obvious distinction between the performance of those born in other quarters
- (f) generally speaking, pupils born in the quarter September/ October/November achieved relatively more significant results than those born in any other quarter irrespective of the number of subject passes considered when they were expressed cumulatively
- (g) the most significant season of birth effect was seen to lie in the benefits accruing to the Autumn born in distinction to any disadvantage accruing to those born in the Summer which were not apparent when the analyses were conducted on a quarterly basis.

# Pupils gaining various numbers of subjects at '0' level, expressed cumulatively

- 1. A consideration of the numbers of pupils born at various times of the year and who gained various numbers of 'O' level subject passes during the period 1962-65, after streaming ended, confirmed that the season of birth effect, previously noted as statistically significant, was now much reduced. In particular, it was found that
  - (a) the proportion of pupils born in the Summer quarter who gained five or more passes was less than the proportion born in any other quarter who did so
  - (b) the advantage previously accruing to the Autumn born in respect of passing in five or more subjects, gave way to a disadvantage accruing to the Summer born in relation to all other groups
  - (c) a positive advantage accruing to those born in the Autumn quarter in respect of gaining four passes or more was still evident but this was not so significant as the disadvantantage associated with being born in the Summer quarter
  - (d) the proportion of pupils born in the Summer quarter who gained three passes or more was less than the proportion born in any other quarter who did so

- (e) the disadvantage accruing to those born in the Summer quarter was greater in respect of passing in three or more subjects by comparison with those born in other quarters than it was in respect of their gaining four or more and five or more passes
- (f) the proportion of pupils born in the Summer quarter who gained two passes or more was less than the proportion born in any other quarter who did so
- (g) the disadvantage accruing to those born in the Summer quarter in respect of gaining two passes or more was less than the disadvantage accruing to the same group in respect of passing in three or more subjects
- (h) the proportion of pupils born in the Summer quarter who gained passes in one or more subjects was less than the proportion born in any other quarter who did so, there being no indication of any significant advantage accruing to those born in the Autumn quarter
- (i) generally speaking, after streaming ended, those pupils born in the quarter June/July/August achieved less successful results than those born in any other quarter, irrespective of the number of subject passes considered, when they were expressed cumulatively
- (j) after streaming ended, an advantage was still to be seen to be associated with being born in the Autumn period, but it was not as significant as it was in the earlier period when the school was streamed and was less apparent than the disadvantage associated with being born in the Summer period
- (k) the differences in achievement between those born in the Autumn quarter and those born in the Summer quarter, whilst still apparent, after streaming ended, are not as significant as they previously were
- (1) generally speaking, the season of birth effect was not so pronounced after streaming ended, in the sense that no single group of pupils was as advantaged or disadvantaged as a consequence of being born at a particular time of the year as were certain pupils in the period when the school was streamed.

The advantages and disadvantages accruing to pupils born in the Autumn and Summer periods, respectively, whatever period is under consideration, are most significant in relation to pupils passing in four, five, six, seven and eight subjects and progressively less significant in relation to pupils passing in three, two and one subjects.

#### SELECTIVE PUPILS - SUCCESS AT 'O' LEVEL

- 1. The '0' level examination results of selective pupils who entered the school over the period 1955-65 do not reveal a significant relations-ship between season of birth and success achieved at '0' level. A tendency is, nevertheless, noted for selective pupils born in the Autumn to do better than those born at other times of the year and a tendency, which is less obvious, for those born in the Summer to do less well.
- 2. The examination results of selective pupils who entered the school during the period that the school was streamed indicate a significant connection between season of birth and success at 'O' level. In particular, selective pupils born in the quarter September/October/ November are seen to achieve better results and those born in the quarter June/July/August poorer results than those born in other quarters.
- 3. The examinations results of selective pupils who entered the school after streaming ended reveal no statistically significant connection between season of birth and success at '0' level. There is a slight indication, however, that selective pupils born in the Summer did not achieve results at '0' level that were as good as those achieved by selective pupils born at other times of the year.

After streaming ended there was no indication that selective pupils born in the Autumn fared less well at 'O' level than selective pupils born at other times of the year

#### NON-SELECTIVE PUPILS - SUCCESS AT 'O' LEVEL

- 1. The results of non-selective pupils entered for '0' level examinations over the period 1955-65 do not indicate a significant relationship between season of birth and success at '0' level. A tendency is, nevertheless, noted for Autumn born non-selective pupils to achieve better results than non-selective pupils born at other times of the year.
- 2. The results of non-selective pupils who entered the school during the period that the school was streamed reveal no significant connection between season of birth and success at '0' level.
- 3. The results of non-selective pupils who entered the school after streaming ended, although giving no indication of a statistically significant relationship between season of birth and success at '0' level, reveal a tendency for non-selective pupils born in the quarter September/October/November to achieve better results than those born in other quarters of the year.

A corresponding disadvantage accruing to the Summer born non-selective pupil, after streaming ended, is not so apparent as it was in the case of the Summer born selective pupil after streaming ended.

- 4. Generally speaking (a) there is not a highly significant tendency for non-selective pupils to be subject to a season of birth effect either before or after streaming ended or during the ll-year period as a whole
  - (b) by contrast with the case of selective pupils, the tendency is for the Autumn born non-selective pupil to be advantaged rather than for the Summer born non-selective pupil to be disadvantaged.

#### PUPILS PLACED IN THE TOP AND BOTTOM STREAMS

- 1. A comparison between the numbers of pupils born at various times of the year who were placed in the top and bottom streams on entry to the school over the period 1955-65 indicates
  - (a) a strong tendency, not quite statistically significant, for the top streams to contain a larger proportion of pupils born in the quarter September/October/November and the bottom streams to contain a smaller proportion of pupils born in the quarter June/July/August
  - (b) a slight tendency for pupils born in the quarter March/April/ May to be placed in the bottom stream in greater numbers than would be expected
  - (c) no tendency for those born in the quarter June/July/August to be placed in the bottom stream on entry to the school in larger numbers than would be expected
  - (d) a tendency for pupils born in the Autumn term to be placed in the top stream and to avoid being placed in the bottom stream.
- 2. A comparison between the numbers of pupils born at various times of the year who were placed in the top and bottom streams at the commencement of the third year over the period 1955-65 indicates
  - (a) a significant tendency for pupils born in the quarter September/October/November to be placed in the top stream in greater numbers, at the commencement of the third year, than pupils born in any other quarter
  - (b) a significant tendency for pupils born in the quarter September/October/November to avoid being placed in the bottom stream at the commencement of the third year
  - (c) that pupils born in the quarter June/July/August are the least likely to find their way into the top stream and most likely to be placed in the bottom stream at the commencement of the third year
  - (d) that by the beginning of the third year those pupils born in the quarter June/July/August were disadvantaged in respect of stream placement in a manner in which they were not on entry to the school
  - (e) a significant tendency for pupils born in the Autumn Term to be placed in the top stream and to avoid being placed in the bottom stream and for pupils born in the Summer Term to be placed in the bottom stream and to avoid being placed in the top stream at the commencement of the third year

- (f) the season of birth effects associated with pupils born in the quarters September/October/November and June/July/August are more significant than those relating to pupils born in the Autumn and Summer Terms respectively.
- 3. The results suggest that a system of streaming may not only lead to certain pupils being placed in top and bottom streams on entry to the school because of their season of birth but may also render it more likely that pupils born at certain times of the year will, by the time they have been in the school for two years, be further advantaged or disadvantaged according to their season of birth.

In particular, the advantage accruing to pupils born in the Autumn, in respect of stream placement, on entry to the school increased after two years and a new tendency for pupils born in the Summer to be disadvantaged in respect of stream placement appeared.

4. The results suggest that, under a system of streaming, the season of birth effect is more influential in determining the composition of the top and bottom streams, at the commencement of the third year, when performance in schoolwork is used as the criterion of evaluation, than it is when pupils first enter the school and eleven-plus results are used as the basis of evaluation.

# PART SIX

# THE HOUSE SYSTEM

- 1. The nature of the annual intake
- 2. Pupils completing the five year course.
- 3. General Certificate of Education the entry.
- 4. General Certificate of Education the results.
- 5. Certificate of Secondary Education the results.

#### THE HOUSE SYSTEM

On entering the school, during the period 1955-65, a pupil was placed in one of ten houses and, generally speaking, remained there for the whole of his school career. (241) The houses are designated as follows:

Smith-Clarke	(SC)	Ellis	(E1)
Gibson	(Gi)	Cresswell	(Cr)
Malins	(Ma)	McLachlan	(Mc)
Perrens	(Pe)	Brook	(Bk)
Stringer	(St)	Sparkes	(Sp)

The purpose of the investigations whose results are described in the present Chapter was to determine whether the houses to which pupils were attached could be regarded as playing a part in influencing

- (a) the tendency for pupils to complete the five-year course
- (b) the nature of the pupils' entry for external examinations
- (c) the success achieved by pupils in external examinations

#### THE NATURE OF THE ORIGINAL INTAKE

Over the period 1955-65, the total number of pupils assigned to each house is seen to be remarkably constant (242) amounting to an average of between 27 and 28 pupils per house per annum. The maximum number assigned to any one house over the entire period was 310 and the minimum number was 298, a difference of only 12 pupils.

A scrutiny of the numbers assigned to each house over the period 1955-61, indicates an average of just over 29 pupils per house per annum. The maximum number assigned to any one house was 210 pupils and the minimum number was 197.

<sup>241.</sup> See Chapter One, Part 3, for more detailed information concerning the house system.

<sup>242.</sup> See Table 74 in Appendix i for precise numbers.

Over the period 1962-65, when the school was no longer streamed, the average number assigned annually to each house was between 24 and 25, the maximum number assigned to any one house being 102 and the minimum number 91.

The smaller average number of pupils assigned to houses during the period 1962-65 is largely a consequence of the annual intakes during that period being smaller by comparison with the earlier period when, for a number of years, there was an 'educational bulge' and intakes greater than ten-form entry size were accepted.

No statistical analysis is necessary to demonstrate the equality of the numbers of pupils assigned to houses during the periods with which this investigation is concerned.

It is necessary, however, to compare the numbers of pupils who were assigned to each house having V.R.Q.'s in various ranges in order to discover whether particular houses were placed in a more or less privileged position with regard to having more or less than their anticipated share of gifted or less-able pupils. (243) In order to effect such a comparison, analyses were conducted on the basis of the numbers of pupils assigned to each house having V.R.Q.'s in the following ranges:

<u>V.R.Q. over 115;</u> <u>V.R.Q. between 100-115;</u> <u>V.R.Q. below 100</u>

Goodness-of-fit tests applied to this data for the three periods in question, produced chi-squares as follows:

1955-65 
$$X^2 = 15.10$$
  
1955-61  $X^2 = 8.10$  Degrees of freedom - 18  
1962-65  $X^2 = 18.31$ 

As the chi-square would have to attain a value of 28.869 to indicate significance at the 5% level, it may reasonably be stated that no house was particularly privileged or under-privileged in respect of having a significantly smaller or larger number of pupils with V.R.Q.'s in a particular range.

<sup>243.</sup> See Tables 75 - 78 in Appendix i for precise numbers of pupils in each house having V.R.Q.'s in the various ranges.

What suggestion there is of a departure from the general pattern of the distribution is in respect of the following:

### The period 1962-65

- 1. Pupils assigned to McLachlan House and having V.R.Q.'s over 115 in larger numbers than would be assumed from the total number entering the school.
- 2. Pupils assigned to Sparkes House and having V.R.Q.'s over 115 in smaller numbers than would be assumed from the total number entering the school.
- 3. Pupils assigned to Brook House and having V.R.Q.'s in the range 100-115 in smaller numbers and in the range below 100 in larger numbers than would be assumed from the total numbers entering the school.
- 4. Pupils assigned to Ellis House and having V.R.Q.'s in the range 100-115 in larger numbers than would be assumed from the total number entering the school.

### The period 1955-65

- 1. Pupils assigned to Brook House having V.R.Q.'s in the range 100-115 in smaller numbers and in the range below 100 in larger numbers than would be assumed from the total numbers entering the school.
- 2. Pupils assigned to Ellis House having V.R.Q.'s in the range 100-115 in larger numbers than would be assumed from the total number entering the school.
- 3. Pupils assigned to Smith-Clarke House having V.R.Q.'s over 115 in larger numbers and below 100 in smaller numbers than would be assumed from the total numbers entering the school.

Because the category of selective pupils does not correspond precisely or, in more recent years, even approximately, with the category of pupils having V.R.Q.'s over 115, it is also necessary to enquire whether the selective pupils who entered the school over the periods in question were distributed evenly amongst the houses. (244)

The average total number of selective pupils assigned to each house over the period 1955-65 was almost 92, amounting to an average of just over eight pupils per house per annum. The minimum number assigned to a particular house was 83 and the maximum number was 100.

<sup>244.</sup> See Table 79 in Appendix i for precise numbers.

The average total number of selective pupils assigned to each house over the period 1955-61 was 60, amounting to an average of between eight and nine per house per annum. The minimum number assigned to a particular house was 54 and the maximum was 65.

The average total number of selective pupils assigned to each house over the period 1962-65, was between 31 and 32, amounting to an average of almost eight pupils per house per annum. The minimum number assigned to a particular house was 25 and the maximum number was 35.

These figures indicate that there was a greater variation in the distribution of numbers of selective pupils amongst the houses than was apparent in the case of the total distribution of pupils to houses, when variations from the mean are considered. (245) On the other hand, a goodness-of-fit test applied to this data, on the basis of the numbers of selective and non-selective pupils assigned to each house over the three periods in question, produced non-significant chi-squares as follows:

1955-65 
$$X^2 = 2.07$$
  
1955-61  $X^2 = 1.82$  Degrees of freedom - 9  
1962-65  $X^2 = 2.40$ 

As the chi-square values would have to reach a level of 16.919 to indicate a 5% level of significance, it is apparent that no house was significantly advantaged or otherwise in respect of the numbers of selective or non-selective pupils assigned to it in relation to the other houses.

What suggestion there is of a departure from the general pattern of the distribution is as follows:

<sup>245.</sup> e.g. the range extended between 298 and 310 only in the case of all pupils assigned to houses during the period 1955-65, a difference of only 12 pupils, compared with a difference in the range of numbers of selective pupils of 17 (100-83) against a background of a much smaller sample.

### The period 1962-65

Selective pupils assigned to Ellis and Cresswell Houses in slightly smaller numbers than might be assumed from the total number entering the school.

#### The period 1955-61

Selective pupils assigned to Smith-Clarke and Gibson Houses in slightly larger numbers and selective pupils assigned to McLachlan House in slightly smaller numbers than might be assumed from the total number entering the school.

## The period 1955-65

Selective pupils assigned to Gibson House in slightly larger numbers and to Cresswell House in slightly smaller numbers than might be assumed from the total number entering the school.

It is interesting to note that although McLachlan House, during the period 1962-65, had more pupils and Sparkes House fewer pupils in the range over 115 than would be expected, no obvious discrepancy is in evidence in respect of the numbers of selective pupils assigned to these houses during the same period.

#### PUPILS COMPLETING THE FIVE YEAR COURSE

Considering the period 1955-65 as a whole, the average number of pupils completing the fifth year in each house each year was slightly less than twelve. The greatest number of pupils, in a particular house, completing the fifth year was 146 and the smallest number was 123, a difference of 23 pupils over a period of 11 years.

Over the period 1955-61, the average annual number of pupils completing the fifth year in each house was almost seven, whilst the maximum and minimum numbers in particular houses were 86 and 69 respectively, a difference of 17 over a period of seven years.

During the period 1962-65, the average annual number of pupils, per house, staying for five years was just over thirteen. The maximum number per house was 60 and the minimum number was 49, a difference of 11 over a period of four years.

Goodness-of-fit tests based on the numbers of pupils staying and notstaying to complete the five year course in each house over the same three periods of time produced the following chi-squares.

1955-65 
$$X^2 = 9.45$$
  
1955-61  $X^2 = 9.44$  Degrees of freedom - 9  
1962-65  $X^2 = 6.60$ 

None of these results are significant at the 5% level of 16.919 and it may, therefore, be said that there is no statistically significant indication that pupils placed in particular houses were more or less likely to complete the five year course.

What suggestion there is of pupils in particular houses being more or less likely to remain at school for five years is as follows:

<sup>246.</sup> See Table 80 in Appendix i for precise annual figures relating to each house.

### The period 1955-65

Pupils in Smith-Clarke and Perrens Houses completing the five year course in slightly larger numbers than might be expected from a consideration of the total numbers in the school completing the five year course.

#### The period 1955-61

Pupils in Smith-Clarke, Perrens and Stringer Houses completing the five year course in larger numbers and those from Malins House in smaller numbers than might be expected from a consideration of the total numbers in the school remaining for five years.

### The period 1962-65

Pupils in Smith-Clarke House only completing the five year course in larger numbers than might be expected from a consideration of the numbers in the school remaining for five years.

It is of interest to enquire whether particular houses emerge as appearing to retain, for five years, more or fewer than the average number of pupils coming from particular parts of the ability range. (247) A goodness-of-fit test applied to the data which was analysed on the basis of pupils staying and not-staying for five years and having V.R.Q.'s in the ranges (a) over 115 (b) 100-115 (c) below 100, for the following three periods, produced the stated chi-square values.

1955-61 
$$X^2 = 13.54$$
  
1962-65  $X^2 = 28.01$  Degrees of freedom - 18  
1955-65  $X^2 = 16.53$ 

These results would be significant at the 5% level if a chi-square of 28.869 resulted. The results for the period 1962-65 approach this value and must, therefore, be regarded as expressing some degree of significance On closer inspection, however, it is discovered that the major contribution in the array leading to the chi-square of 28.01 is associated with pupils of V.R.Q. over 115 in McLachlan House who completed the five year course in greater numbers than did those in other houses. This is explained on the

<sup>247.</sup> See Table 81 in Appendix i for precise figures relating to each house.

basis of the considerably larger numbers of such pupils who were originally placed in this house.

It may reasonably be said, therefore, that no particular house contributed a statistically significantly greater or smaller proportion of pupils to the total of those who completed the five year course and who came from particular parts of the ability range, when the numbers of such pupils orginally allocated to each house are taken into account.

The previous analyses were conducted on the basis of numbers of pupils staying for five years without reference to the numbers of pupils originally allocated to the houses. The following tables indicate the proportions of the original intakes into the houses that completed the five year course and are slightly more revealing.

Numbers of pupils staying for five years expressed as a percentage of the numbers of pupils in the original intakes

Period	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
1955-65	48.7	41.6	47.7	40.4	44.6	41.3	43.0	41.1	43.0	40.7	43.2
1955-61	42.6	37.4	42.1	33.3	42.2	37.5	37.2	35.0	35.6	33.7	37.6
1961-62	61.2	50.0	58.4	55•7	49.5	49.0	56.0	53.5	58.0	55•7	54.7

The following table shows the differences between the percentage of pupils completing five years in each house and the mean value for the whole group.

Period	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	
1955-65	5•5	1.6	4.5	2.8	1.4	1.9	0.2	2.1	0.2	2.5	+
1955-61	5.0	0.2	4.5	4.3	4.6	0.1	0.4	2.6	2.0	<b>3.9</b>	+
1962-65	6.5	4.7	3.7	1.0	5.2	5•7	1.3	1.2	3.3	1.0	+

The following conclusions may be drawn from a consideration of the values in the table above.

### The period 1955-61

The proportions of the intakes in Smith-Clarke, Perrens and Stringer Houses remaining for five years were substantially above the mean value for the group, whilst those in Malins and Brook Houses were substantially below the mean value.

### The period 1962-65

The proportions of the intakes in Smith-Clarke, Perrens and Sparkes Houses remaining for five years were substantially above the mean value for the group whilst those in Ellis, Stringer and Gibson Houses were substantially below the mean value.

#### The period 1955-65

The proportions of the intakes in Smith-Clarke and Perrens Houses remaining for five years were substantially above the mean value for the group whilst those in Malins and Brook Houses were well below the mean value.

Taking into consideration all these results, it is apparent that a substantially higher proportion of the original intakes into Smith-Clarke and Perrens Houses completed the five year course during all periods and that pupils in Smith-Clarke House appeared to be more advantaged than pupils in any other house in this respect.

No house appears to be as greatly disadvantaged in all periods as was Smith-Clarke and Perrens Houses advantaged, although the percentages of the original intakes staying for five years in McLachlan, Ellis and Gibson Houses were below the mean for the whole group during all of the three periods under consideration.

After streaming ended, the percentage of pupils in Malins, Sparkes, Brook and Cresswell, remaining for five years, improved by comparison with the earlier period but the percentage of pupils in Stringer House staying for five years decreased dramatically after the ending of streaming. After the ending of streaming, pupils in Ellis, Stringer and Gibson Houses appeared to be disadvantaged somewhat compared with pupils in other houses and by comparison with the earlier period.

The previous analysis attempted to answer the question, "What proportion of the original intake into each House completed the five year course?"

If the answer to the question, "What proportion of all pupils who completed the five year course came from a particular house?" is attempted, the following table results.

Numbers of pupils staying for five years expressed as a percentage of the total number in the school staying for five years

Period	sc	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
1955-65	11.2	9.8	10.9	9•5	10.3	9.8	9.8	9.4	10.0	9.4	100.0
1955-61	11.2	10.0	10.8	9.1	11.2	10.1	10.0	9.1	9•5	9.0	100.0
1962-65	11.1	9.5	10.9	10.0	9.1	9.3	9.5	9.8	10.8	10.0	100.0

These results indicate the following

#### The period 1955-65

An above average contribution towards the total number staying for five years from pupils in Smith-Clarke and Perrens Houses and a below average contribution from pupils in Brook, McLachlan and Malins Houses.

#### The period 1955-61

An above average contribution towards the numbers staying for five years from pupils in Smith-Clarke, Stringer and Perrens Houses and a below average contribution from pupils in Brook, McLachlan and Malins Houses.

#### The period 1962-65

An above average contribution towards the numbers staying for five years from pupils in Smith-Clarke, Perrens and Sparkes Houses and a below average contribution from pupils in Stringer, Ellis, Gibson and Cresswell Houses.

It is also of interest to note the proportions of the original intakes into houses coming from various parts of the ability range, that individual houses retained for the full five year period. These are shown in the following tables.

# Numbers of pupils staying for five years having V.R.Q.'s in various ranges expressed as a percentage of the numbers in the original intakes having V.R.Q.'s in those ranges

#### The period 1955-65

Range	sc	Gi	Pe	Ma	St	El	Cr	Mc	$s_p$	Bk	Total	
Over 115	81.1	72.2	79.7	68.0	79.2	76.0	79.2	76 <b>.</b> 2	79•7	78.8	77.0	
100-115	46.6	51.3	57.5	55•9	53.1	43.2	43.8	47.7	49.2	47.4	49.5	
Below 100	23.2	11.2	13.5	9.1	12.4	13.6	17.1	7.4	14.7	11.2	13.2	
The period 1955-61												
Over 115	75.8	73.8	80.4	68.4	79.7	79.3	83.6	68.5	77.8	78.3	76.6	
100-115	35.6	42.2	44.8	38.2	47.7	32.9	32.1	41.4	36.6	30.0	38.1	
Below 100	19.4	6.2	10.8	5•9	10.0	9•5	8.1	5•3	6.3	4.7	8.4	
			,	The pe	riod l	962 <b>-</b> 65						
Over 115	95•7	66.7	77.8	66.7	77.8	64.7	64.7	90.0	86.7	80.0	78.4	
100-115	65.1	63.3	73.6	83.7	60.4	57.1	65.1	59•5	67.3	75 <b>.7</b>	66.8	
Below 100	31.3	22.9	20.0	16.7	18.2	24.1	38.7	12.5	33.3	25.0	24.3	

An examination of the differences between these percentages and the mean values for the whole group for the three periods under investigation, suggests the following.

#### Pupils in the V.R.Q. range over 115

In the period 1955-61, before streaming ended, pupils attached to Cresswell House formed a larger proportion of the total number of pupils in the school who completed the five year course than did those from any other house. Above-average proportions of pupils from Perrens and Stringer houses completing the five year course are also noted. Pupils from Malins and McLachlan houses formed smaller proportions of the total number of pupils completing the five year course than did those from other houses.

In the period 1962-65, after streaming ended, pupils attached to Smith-Clarke House and, to a lesser extent, McLachlan and Sparkes houses, formed a significantly larger proportion of those staying for five years than did those from other houses. At the same time, pupils from Ellis, Cresswell, Malins and Gibson houses formed significantly smaller proportions of the total number staying for five years than did those in other houses.

In the whole of the period 1955-65, pupils from Smith-Clarke House, and to a lesser extent, Perrens and Sparkes houses, formed well above average proportions and those from Malins, and to a less extent, Gibson House, smaller proportions of the total number staying for five years.

In all three periods, pupils from Sparkes and Brook houses formed an above-average proportion and those from Malins a below average proportion of the total number staying for five years.

#### Pupils in the V.R.Q. range 100-115

In the period 1955-61, pupils from Stringer and Perrens houses formed a larger proportion and those from Brook House a smaller proportion of the total number staying for five years than did pupils in other houses.

In the period 1962-65, pupils from Malins House and to a lesser extent from Brook House, formed a larger proportion and pupils from Ellis House a smaller proportion of the total number staying for five years than did those in other houses.

In the period 1955-65, pupils from Perrens and Malins houses formed a larger proportion and those from Ellis and Cresswell houses a smaller proportion of the total number staying for five years than did pupils in other houses.

In all three periods, pupils from Perrens and Malins houses formed an above-average proportion and those from Ellis, Cresswell and McLachlan houses a below-average proportion of the total number staying for five years than did pupils in other houses.

#### Pupils in the V.R.Q. range below 100

In the period 1955-61, pupils from Smith-Clarke House only formed a significantly larger proportion of the total number staying for five years compared with pupils in other houses.

In the period 1962-65, pupils from Cresswell, Sparkes and Smith-Clarke houses formed a larger proportion and those from McLachlan and Malins a below-average proportion of those staying for five years compared with pupils in other houses.

In the period 1955-65, pupils from Smith-Clarke House only formed a significantly larger proportion and those from McLachlan House a below average proportion of those staying for five years compared with pupils in other houses

In all three periods, pupils from Smith-Clarke House formed an above-average proportion of the total number of pupils staying for five years and having V.R.Q.'s below 100.

There is not to be seen, during the period the school was streamed, such wide difference between the percentages of those staying for five years in individual houses and the mean values as is noted in the period after the ending of streaming. The ending of streaming appears to have

widened the differences between the proportions of pupils in particular houses who remained at school for five years, irrespective of the V.R.Q. range considered. This may be the result, however, to some extent, of the smaller sample being dealt with in the four-year period 1962-65 by comparison with the earlier seven-year period 1955-61. (248)

Considering the percentages indicated in the earlier table in relation to the mean values for the whole group over all three periods and all V.R.Q. ranges, gives rise to the following table which shows the number of occasions on which the percentages of pupils from particular houses were above and below the mean value for the group respectively.

	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk
Above mean	6	2	7	3	5	3	3	1	6	5
Below mean	3	7	2	6	4	6	6	8	3	4

The figures indicate that pupils from Perrens, Smith-Clarke and Sparkes houses consistently accounted for higher proportions of all pupils in the school who remained for five years, than did those from other houses, irrespective of whether the school was streamed or unstreamed. Similarly, pupils from McLachlan and Gibson houses consistently accounted for smaller proportions of the total number staying for five years by comparison with pupils in other houses, iirespective of whether the school was streamed or unstreamed.

#### Selective and non-selective pupils

During the whole of the period 1955-65, a total of 722 selective pupils or an average of between six and seven per house per year completed the five year course. (249) Considering the periods 1955-61 and 1962-65 seperately, a total of 468 selective pupils or an average of almost seven per

<sup>248.</sup> See the results of the analysis of variance tests later in this section.

<sup>249.</sup> See Table 82 in Appendix i for precise numbers relating to each house.

year completed the five year course during the former period compared with a total of 254 or just over six per house per year in the period after streaming ended.

A goodness-of-fit test applied to the numbers of selective and non-selective pupils completing the five year course in each house over the three periods in question produced the following chi-squares.

1955-61 
$$X^2 = 6.73$$
  
1962-65  $X^2 = 13.82$  Degrees of freedom - 9  
1955-65  $X^2 = 7.09$ 

A chi-square of 16.919 would have indicated a degree of significance at the 5% level. The value associated with the period 1962-65 approaches this value which arises largely as a consequence of selective pupils in Cresswell and Stringer houses completing the five year course in smaller and larger numbers respectively and in non-selective pupils, from the same houses, completing the five year course in larger and smaller numbers respectively than was to be expected.

Much more informative is the following table which shows the number of selective pupils completing the fifth year in each house expressed as a percentage of the total number of selective pupils in the original intake in each house.

Period	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
1955-61	75.0	78.5	81.4	70.5	83.1	76.2	79.3	72.2	81.0	81.7	77.9
1962-65	83.3	71.4	85.3	78.1	88.2	69.0	64.0	91.2	87.5	83.3	80.6
1955-65	77.7	76.0	82.8	73.1	84.9	73.9	74.7	79.5	83.3	82.2	78.8

A consideration of the differences between these percentages and the mean percentage for each period indicates that, in all three periods, selective pupils from Stringer, Sparkes and Brook houses formed an above-average proportion and pupils from Malins and Ellis houses a below average proportion of the total number of selective pupils staying for five years.

During the whole of the period 1955-65, a total of 586 non-selective pupils or an average of between five and six per house per year, completed the five year course. (250) The largest number of non-selective pupils in any one house completing the five year course was 73 and the smallest number was 49 over the 11-year period.

Considering the periods 1955-61 and 1962-65 separately, a total of 301 non-selective pupils or an average of less than five per house per year completed the fifth year during the former period compared with a total of 285 or over seven per house per year during the four year period after streaming ended.

The following table indicates the number of non-selective pupils completing the five year course in each house expressed as a percentage of the total number of pupils in the original intake in each house.

Period	SC	Gi	Рe	Ma	St	El	Cr	Mc	Sp	Bk	Total
1955-61	27.5	18.4	25.4	18.1	25.5	20.7	20.8	21.2	17.7	13.8	20.9
1962-65	51.5	38.8	44.8	44.6	29.2	41.1	53.0	33.8	44.1	43.3	42.5
1955-65	35.4	25.0	31.7	26.2	26.7	27.5	30.7	25.1	26.0	23.1	27.7

It can be seen by reference to the differences between these percentages and the mean value for each period that, in all three periods, non-selective pupils from Smith-Clarke and Perrens houses accounted for an above-average proportion whilst non-selective pupils from Gibson House formed a below average proportion in all three periods of the non-selective pupils in the school staying for five years.

The following rankings result from a consideration of the analyses described in this section and are intended to indicate, in decreasing order, the success achieved by individual houses, by comparison with the other houses, in retaining for the full five year period

<sup>250.</sup> See Tables 80 and 82 for precise numbers relating to each house.

- (1) all pupils irrespective of ability or designation
- (2) selective pupils
- (3) non-selective pupils

over the periods of time indicated.

#### ALL PUPILS

Period	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk
1955-61	1	5	3	10	2	4	6	8	7	9
1962-65	1	8	2	5	9	10	4	7	3	5
1955-65	1	8	2	9	4	7	5	10	3	6

#### SELECTIVE PUPILS

Period	SC	Gi	Pe	Ma	St	El	Cr	Mc	$\mathfrak{s}_{\mathrm{p}}$	Вk
1955-61	8	6	3	10	1	7	5	9	4	2
1962-65	5	8	4	7	2	9	10	1	3	5
1955-65	6	7	3	10	1	9	8	5	2	4

### NON-SELECTIVE PUPILS

Period	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk
1955-61	1	7	3	8	2	6	5	4	9	10
1962-65	2	8	3	4	10	7	1	9	. 5	6
1955-65	1	9	2	7	5	4	3	3	8	10

The conclusions so far stated were confirmed when the data was subjected to analysis of variance tests. (251) On the first run through, a significant difference in results was noted between the years. This was of the order of 1% significance in most cases. Because it was thought that

<sup>251.</sup> These were carried out by computer at the Lanchester College of Technology, Coventry.

the variation between the years may have been a result of the changes that took place following the ending of streaming in 1961, the data was split into two blocks (1955-61) and (1962-65) which were then subjected separately to analysis of variance tests.

The results of the tests were as follows:

- 1. A significant variation was discovered between the years when the tables were considered as a single block (1955-65). The degree of significance was 1% with the exception of the tables dealing with the percentages of selective pupils in the original intakes completing the five year course, where the level of significance was only 5%.
- 2. When the tables were considered as a single block (1955-65), in all cases the effects of the differences between the houses was not significant.
- 3. When the tables were examined in two blocks separately (1955-61) and (1962-65) the variation between houses remained non-significant in the period 1955-61 and also in the period 1962-65 except for the tables showing non-selective pupils completing the five year course as a percentage of all pupils in the original intakes where the variation between houses was significant at the 5% level only.
- 4. When the tables were examined in two blocks there was a noticeable drop in the significance of the variation between the years, particularly in the period 1962-65, when the variation, in many cases, was reduced to non-significance.
- 5. The previous conclusion indicated that the variation between the years noted when the tables were considered within one block covering the period 1955-65 was associated with the change in the results that followed the ending of streaming in 1961. The results showed that the effect was an increase in the block means after streaming ended.
- 6. However great an effort was made to find any highly statistically significant variation between the houses, none was apparent, in any of the periods.

#### GENERAL CERTIFICATE OF EDUCATION - THE ENTRY

During the period 1955-61 when all intakes were rigidly streamed on entry to the school, a total of 769 pupils completed the five year course of which 625 sat for one or more 'O' level subjects. (252) This figure is equivalent to an average number of almost 63 pupils per house over the seven year period, although, in fact, the numbers in each house who sat for 'O' level subjects varied, the minimum number in any one house being 55 and the maximum number being 74.

During the period 1962-65, out of a total of 539 pupils who completed the five year course, 445 sat for one or more 'O' level subjects. (253)

This represents an average number of almost 45 pupils per house over the four year period, but, in practice, the numbers varied between a minimum of 34 and a maximum of 53.

Goodness-of-fit tests were applied to the data representing the numbers of pupils in the various houses who were entered for various numbers of 'O' level subjects, using the three categories of (a) no subject entries (b) one, two and three subject entries (c) four or more subject entries. These analyses produced the following chi-squares.

# The period 1955-61 $x^2 = 36.73$

This result is significant beyond the 1% level of 34.805 and is chiefly a consequence of the influence of the following houses.

Brook House	which had significantly fewer pupils not entered for any 'O' level subjects
Smith-Clarke House	which had a significantly larger number of pupils not entered for any 'O' level subjects
Sparkes House	which had relatively fewer pupils entered for one, two and three subjects.

<sup>252.</sup> See Table 83 for precise figures relating to numbers in each house who were entered for various numbers of subjects in the period 1955-61.

<sup>253.</sup> See Table 84 for precise figures relating to the period 1962-65.

# The period 1962-65 $x^2 = 38.22$

This result is significant beyond the 1% level of 34.805 and is a consequence largely of the influence of the following houses.

Cresswell House which had a significantly larger number of pupils

not entered for any 'O' level subjects

Stringer House which had relatively larger numbers of pupils

entered for four or more subjects

Gibson House which had a significantly larger number of pupils

not entered for any 'O' level subjects and a smaller number entered for one, two and three

subjects

Ellis House which had an above-average number of pupils not

entered for any subjects

Malins House which had a below-average number of pupils not

entered for any subjects.

# The period 1955-65 $x^2 = 30.34$

This result is significant beyond the 5% level of 28.869 but is not significant at the 1% level as were the previous two analyses. The significance results largely as a consequence of the influence of the following houses.

Brook House which had a significantly smaller number of pupils

not entered for any subjects and an above-average number entered for one, two and three subjects

Cresswell House which had an above-average number not entered for

any subjects at all

Stringer House which had a below-average number not entered for

any subjects at all

Gibson House which had an above-average number not entered for

any subjects at all.

Further chi-square analyses were carried out in which those pupils who were not entered for any 'O' level subjects were omitted and using the data associated with pupils entered for (a) one, two and three subjects and (b) four or more subjects. The following chi-squares resulted.

# The period 1955-61 $x^2 = 16.00$

This is almost significant at the 5% level of 16.919 and is almost entirely the result of the influence of the following houses.

Sparkes House which had a significantly smaller number of pupils entered for one, two and three subjects and a significantly larger number entered for four or more subjects

Perrens House which had a significantly larger number of pupils entered for one, two and three subjects and a below average number entered for four or more subjects.

## The period 1962-65 $X^2 = 11.60$

This result is not significant at the 5% level and any indications there are of a particular house influencing the result significantly relates entirely to Stringer House with a below average number of pupils entered for one, two and three subjects and an above average number entered for four or more subjects

### The period 1955-65 $x^2 = 8.39$

This result is the least significant of the six analyses and any significance to be seen is largely a consequence of pupils in <u>Sparkes House</u> and <u>Smith-Clarke House</u>, relatively fewer of whom were entered for one, two and three subjects and of pupils in <u>Sparkes House</u> relatively more of whom were entered for four or more subjects than those in other houses.

It is obvious that the significance of the chi-squared tests diminished when pupils who were not entered for '0' level subjects were excluded. It may, therefore, be said that the most important difference between the houses lay in the numbers of pupils who were not entered for '0' level examinations rather than in pupils who were entered for significantly different numbers of subjects in different houses. That there were differences in the pattern of the entries in the various houses is apparent. What is not apparent is that these differences were statistically significant when attention is confined to pupils entered for one or more '0' level subjects.

The following tables indicate the proportions of the fifth form in each house which was entered for various numbers of '0' level subjects and show, in greater detail, the differences between the various houses.

### The period 1955-61

Entry	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
7 or more	23.0	28.6	24.0	20.0	27.9	33.8	31.2	15.7	35.6	42.0	28.1
4, 5, 6	18.4	19.5	19.3	28.6	23.3	20.8	24.7	37.1	30.2	21.8	24.1
1, 2, 3	31.0	29.9	38.6	30.0	34.8	27.2	24.7	27.1	12.3	33.3	29.1
0	27.6	22.0	18.1	21.4	14.0	18.2	19.4	20.1	21.9	2.9	18.7

The most significant <u>positive</u> deviations from the average values in this table are represented by:

Brook House - entries in seven or more subjects

McLachlan House - entries in four, five and six subjects

Brook House - pupils entered for no subjects

Perrens House - entries in one, two and three subjects

The most significant <u>negative</u> deviations from the average values in the above table are represented by:

McLachlan House - entries in seven or more subjects
Sparkes House - entries in one, two and three subjects

### The period 1962-65

Entry	sc	Gi	Pe	Ma	St	E1	Cr	Мс	Sp	Bk	Total
7 or more	20.3	19.6	18.6	16.7	30.6	21.6	15.7	28.3	19.0	29.6	21.9
4, 5, 6	28.8	35•3	44.1	37.0	38.8	19.6	21.6	30.2	36.2	14.8	30.8
1, 2, 3	37.3	17.6	27.1	27.8	20.4	31.4	29.4	34.0	34.5	37.0	29.9
0	13.6	27.5	10.2	18.5	10.2	27.4	33.3	7.5	10.3	18.6	17.4

The most significant <u>positive</u> deviations from the average values in the table above are represented by:

Brook and Stringer Houses - entries in seven or more subjects

Perrens House - entries in four, five and six subjects

McLachlan House - pupils entered for no subjects

The most significant <u>negative</u> deviations from the average values in the table above are represented by:

Brook, Ellis and Cresswell Houses - entries in four, five and six subjects

Gibson and Stringer Houses - entries in one, two and three subjects

Cresswell, Gibson and Ellis Houses - pupils entered for no subjects

### The period 1955-65

Entry	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
7 or more	21.9	25.0	21.8	18.5	28.9	28.9	25.0	21.1	28.2	36.5	25.5
4, 5, 6	22.6	25.8	29.6	32.3	28.9	20.3	23.4	34.1	32.8	18.7	26.8
1, 2, 3	33.6	25.0	33.8	29.0	29.6	28.9	26.6	30.1	22.1	35.0	29.4
0	21.9	24.2	14.8	20.2	12.6	21.9	25.0	14.6	16.9	9.8	18.3

The most significant positive deviations from the average values in the table above are represented by:

Brook House

McLachlan, Sparkes and Malins Houses

Brook House

Brook and Stringer Houses

- entries in seven or more subjects

entries in four, five and six subjects

- entries in one, two and three subjects

- pupils entered for no subjects

The most significant negative deviations from the average values in the table above are represented by:

Malins House - entries in seven or more subjects

Brook and Ellis Houses - entries in four, five and six subjects

Sparkes House - entries in one, two and three subjects

Cresswell and Gibson Houses - pupils entered for no subjects

The previous analyses were used to calculate the following rankings which indicate, in decreasing order, the tendency for high proportions of fifth form pupils in the various houses to be entered for one or more 'O' level subjects.

	1955-61	<u> 1962<b>-</b>65</u>	<u> 1955-65</u>
sc	10	5	8
Gi	9	9	10
Pe	3	2	2
Ma	7	6	6
St	2	2	ı
El	4	8	6
Cr	5	10	9
Mc	6	1	4
Sp	8	4	5
Bk	1	7	2

Also informative is the number of pupils in each house who were entered for one or more 'O' level subjects expressed as a percentage of the original intake into the house. That is to say, the proportion of the original intake that eventually sat for one or more 'O' level subjects. This is shown in the following tables.

### The period 1955-61

	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
%	31.2	29.2	34.5	26 <b>.2</b>	36.3	30.3	30.0	28.0	27.8	32.6	30.7
Rank	4	7	2	10	1	5	6.	8	9	3	
The per	iod 196	2 <b>-</b> 65									
%	52.9	36.2	52.4	45.4	44.5	36.3	37.4	49.6	52.0	45.3	45.1
Rank	1	10	2	5	7	9	8	4	3	6	
The per	iod 195	5 <b>-</b> 65									
%	38.0	31.5	40.7	32.2	39.0	32.2	32.3	35.1	35.8	36.7	35•3
Rank	3	10	ı	8	2	8	7	6	5	4	

Taking into consideration the percentages of the original intakes entered for 'O' level examinations in all three periods, it is apparent that

Perrens and Smith-Clarke Houses were consistently the mest successful in entering larger proportions of their pupils for at least one subject at 'O' level and that Gibson House was consistently the least successful house.

The following rank order may be taken as an indication of the degree of success achieved by houses in consistently entering larger proportions of the original intakes over all three periods of time. (254)

- 1. Perrens 4. Brook 7. Cresswell
- 2. Smith-Clarke 5. Sparkes 8. Ellis
- 3. Stringer6. McLachlan9. Malins10. Gibson

All the previous analyses have been conducted on the basis of numbers of pupils entered for '0' level examinations. The following tables (255) show the number of subject entries made on behalf of pupils in the various houses, together with numbers of pupils in each house who were entered, thus enabling an average subject entry figure per pupil to be calculated.

<sup>254.</sup> The same rank order may be taken as an indication of those houses which were successful in securing passes for a large proportion of their intakes over the two periods 1955-61 and 1962-65.

<sup>255.</sup> See Table 85 for precise details concerning the number of subject entries in each house in each year.

The period 1955-61

	SO	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
Entires	287	308	315	255	349	332	329	255	335	362	3127
Pupils	63	60	68	55	74	63	62	56	57	67	625
Average	4.6	5.1	4.6	4.6	4.7	5•3	5.3	4.6	5.9	5.4	5.0
				The p	period	1962-6	<u>55</u>				
Entries	218	184	245	194	234	169	141	225	229	200	2039
Pupils	51	37	53	44	44	37	34	49	52	44	445
Average	4.3	5.0	4.6	4.4	5.3	4.6	4.1	4.6	4.4	4.5	4.6
				The p	eriod	1955-6	<u>55</u>				
Entries	506	492	560	449	583	500	470	480	564	562	5166
Pupils	114	97	121	99	118	100	96	105	109	111	1070
Average	4.4	5.1	4.6	4.5	4.9	5.0	4.9	4.6	5.2	5.1	4.8

An inspection of these figures shows how those houses which were successful in entering the larger proportions of their intakes did not necessarily achieve a high subject entry rate per pupil, as would, of course, be expected. The following rank order lists may be taken as an indication of the degree of success achieved by houses in securing the twin objectives of ensuring (a) that a large proportion of their original intake was entered for 'O' level and (b) that the average subject entry per pupil was as large as possible.

	1955-61	<u> 1962<b>-</b>65</u>	1955-65
Smith-Clarke	7	4	8
Gibson	7	7	6
Perrens	5	ı	5
Malins	10	7	10
Stringer	2	2	3
Ellis	3	9	6
Cresswell	4	10	3
McLachlan	9	2	8
Sparkes	5	4	1
Brook	ı	7	1

The following rankings represent, in decreasing order, the houses which were most successful in achieving the twin objectives of ensuring

(a) that a large proportion of the fifth form was entered for '0' level and (b) that the average subject entry per pupil was as large as possible.

	<u> 1955-61</u>	<u> 1962-65</u>	<u> 1955–65</u>
Smith-Clarke	10	9	10
Gibson	7	4	7
Perrens	6	3	4
Malins	9	7	9
Stringer	3	1	2
Ellis	2	6	5
Cresswell	3	10	8
McLachlan	7	2	6
Sparkes	5	4	2
Brook	1	7	1

#### GENERAL CERTIFICATE OF EDUCATION - THE RESULTS

During the period 1955-61, a total of 769 pupils completed the five year course of which 490 were successful in passing one or more '0' level subjects. (256) This figure is equivalent to an average of almost 50 pupils per house over the seven year period, although, in fact, the numbers in each house who were successful at '0' level varied, the minimum number in any one house being 41 and the maximum number being 58.

During the period 1962-65, out of a total of 539 pupils who completed the five year course, 387 were successful in passing one or more '0' level subjects. (257) This represents an average of almost 39 pupils per house over the four year period but, in fact, the numbers varied between a minimum of 28 in one house and a maximum of 46 in another.

Chi-squared tests were applied to the data representing the numbers of pupils in the different houses who gained passes in various numbers of 'O' level subjects. The first analysis was carried out using the results of all pupils who completed the five year course, whether they were entered for 'O' level examinations or not and adopting the categories of (a) no subject passes, (b) one, two and three passes; (c) four or more passes. These analyses produced the following results:

# The period 1955-61 $x^2 = 37.81$

This result is significant beyond the 1% level of 34.805 and is chiefly a consequence of the influence of the following houses: (258)

Brook House which had significantly fewer pupils not gaining any passes and significantly larger numbers gaining four or more passes

Smith-Clarke House which had significantly more pupils not gaining any passes and significantly fewer pupils gaining one, two and three passes.

<sup>256.</sup> See Table 86 for precise figures relating to the numbers in each house in this period.

<sup>257.</sup> See Table 87 for precise figures relating to the numbers in each house in this period.

<sup>258.</sup> The order in which these are listed represents the degree of significance exhibited by particular houses in the chi-square analyses.

McLachlan House which had relatively more pupils gaining one, two and three passes and fewer gaining four or more passes.

Perrens House which had relatively more pupils not gaining any passes and fewer gaining four or more passes.

## The period 1962-65 $x^2 = 27.19$

This result is almost significant at the 5% level of 28.869 and is a consequence largely of the influence of the following houses:

Cresswell House which had significantly larger numbers of pupils not gaining any passes

Stringer House which had significantly fewer pupils not gaining any

Perrens House which had relatively more pupils gaining one, two and three passes.

# The period 1955-65 $x^2 = 14.74$

This result is significant at the 5% level of 28.869 and is largely the result of the influence of the following houses:

Brook House which had significantly fewer pupils gaining no

passes and significantly more gaining four or

more passes

Smith-Clarke House which had significantly more pupils gaining no

passes and fewer gaining one, two and three passes

Perrens House which had significantly fewer pupils gaining four

or more passes

McLachlan House which had relatively more pupils gaining one, two

and three passes

Stringer House which had relatively fewer pupils gaining no

passes

Further analyses were carried out using only the data from the group of pupils who were entered for 'O' level examinations. These resulted in the following chi-square values:

# The period 1955-61 $X^2 = 26.09$

This result is almost significant at the 5% level of 28.869 and results largely from the influence of the following houses:

Perrens House which had more pupils gaining no passes and fewer gaining four or more passes

McLachlan House which had more pupils gaining one, two and three passes and fewer gaining four or more passes

Brook House which had fewer pupils gaining no passes and more

gaining four or more passes

Smith-Clarke House which had more pupils gaining no passes and fewer gaining one, two and three passes

# The period 1962-65 $X^2 = 16.92$

This result is not significant at the 5% level and any indications there are of particular houses influencing the result in a significant manner are as follows:

Stringer House which had fewer pupils gaining no passes and more gaining four or more passes

Perrens House which had more pupils gaining one, two and three passes and fewer gaining four or more passes

Brook House which had relatively more pupils gaining no passes

## The period 1955-65 $x^2 = 17.73$

This result is not significant at the 5% level and any indications there are of particular houses influencing the result significantly are as follows:

Perrens House which had more pupils gaining no passes and

fewer gaining four or more passes

Brook House which had more pupils gaining four or more

passes

Smith-Clarke House which had more pupils gaining no passes

A third set of analyses was carried out using only the data from the group of pupils who were successful in passing one or more 'O' level subjects, adopting the categories of (a) one, two and three passes;

(b) four or more passes. The following chi-squares resulted:

The period 1955-61 
$$X^2 = 14.74$$

This result is not quite significant at the 5% level of 16.919 and what significance there is results from the influence of the following houses:

McLachlan House which had significantly more pupils gaining one, two and three passes and fewer gaining four or more passes

Smith-Clarke House which had fewer pupils gaining one, two and three passes and more gaining four or more passes

Brook House which had fewer pupils gaining one, two and three passes and more gaining four or more passes

The period 1962-65  $X^2 = 5.69$ 

This result is not significant and the only house whose contribution was noticeable was Perrens House, relatively more of whose pupils gained one, two and three passes and fewer of whom gained four or more passes.

The period 1955-65  $x^2 = 10.54$ 

This result is not significant at the 5% level of 16.919 and any indications there are of a significant contribution by houses is as follows:

Perrens House which had relatively more pupils gaining one, two and three passes and fewer gaining four or more passes

Brook House which had relatively fewer pupils gaining one, two and three passes and more gaining four or more passes.

It is obvious that the significance of the chi-squared test results diminished when pupils who were not entered for 'O' level subjects were excluded and that they diminished even further when pupils who had been entered but had gained no passes were excluded. It may, therefore, be said that the most important difference between the houses lay in the pupils who completed the five year course and gained no passes because they were not entered for 'O' level and, to a lesser extent, in those who were entered but gained no passes, than in pupils who were successful in gaining significantly different numbers of subject passes in different houses.

More informative is the data showing the proportion of the fifth form in each house which was entered for 'O' level examinations and was successful in passing various numbers of subjects. The following tables show the numbers of pupils gaining various numbers of passes in each house expressed as a percentage of the total number of pupils completing the five year course.

### The period 1955-61

Subjects	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
7 or more	2.3	6.5	10.8	5.7	4.7	<b>3.</b> 8	5.2		4.1	11.6	5.5
4, 5, 6	25.6	16.9	7.2	15.7	20.9	25.7	22.1	17.2	27.4	31.9	20.9
1, 2, 3	23.3	36.4	37.4	37.2	40.7	34.7	39.0	51.4	35.6	40.6	37.3
O(entered)	20.9	18.2	26.5	20.0	19.8	17.9	14.2	11.4	11.0	13.0	17.6

The most significant <u>positive</u> deviations from the average values in this table are as follows:

Brook House - passes in seven or more subjects

Perrens House - passes in seven or more subjects

Brook House - passes in four, five and six subjects

Sparkes House - passes in four, five and six subjects

McLachlan House - passes in one, two and three subjects

Sparkes House - pupils gaining no passes

McLachlan House - pupils gaining no passes

The most significant <u>negative</u> deviations from the average values in the table above are as follows:

McLachlan House-passes in seven or more subjectsPerrens House-passes in four, five and six subjectsSmith-Clarke House-passes in one, two and three subjectsPerrens House-pupils gaining no passes

### The period 1962-65

Subjects	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
7 or more	11.7	7.8	5 <b>.1</b>		6.1	6.0	9.8	11.3	6.9	11.1	7.6
4, 5, 6	16.7	25.5	18.6	33.3	34.7	20.0	11.8	24.5	25.9	20.4	23.0
1, 2, 3	43.3	31.4	54.2	40.7	46.9	40.0	33.3	41.5	44.8	33.3	41.2
O(entered)	13.3	7.8	11.9	7.4	2.0	8.0	11.8	15.1	12.1	16.7	10.8

The most significant <u>positive</u> deviations from the average values in this table are as follows:

Malins House - passes in four, five and six subjects

Stringer House - passes in four, five and six subjects

Perrens House - passes in one, two and three subjects

Stringer House - pupils gaining no passes

The most significant <u>negative</u> deviations from the average value are as follows:

Malins House - passes in seven or more subjects

Cresswell House - passes in four, five and six subjects

Gibson House - passes in four, five and six subjects

passes in one, two and three subjects

Brook House - passes in one, two and three subjects

prook House - passes in one, two and three subjects

prook House - passes in one, two and three subjects

prook House - pupils gaining no passes

### The period 1955-65

Subjects	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
7 or more	6.2	7.0	8.5	3.2	5.2	4.7	7.0	4.9	5.3	11.4	6.3
4, 5, 6,	21.9	20.3	11.9	23.4	25.9	23.4	18.0	20.3	26.8	26.8	21.8
1, 2, 3,	31.5	34.4	44.4	38.7	43.0	36.7	36.7	47.2	39.7	37.4	39.0
O(entered)	17.8	14.1	20.4	14.5	13.3	14.1	13.3	13.0	11.5	13.6	14.7

The most significant <u>positive</u> deviations from the average values in this table are as follows:

Brook House - passes in seven or more subjects and in four, five and six subjects

Sparkes House - passes in four, five and six subjects

McLachlan House - passes in one, two and three subjects

Perrens House - passes in one, two and three subjects

Sparkes House - pupils gaining no passes

The most significant <u>negative</u> deviations from the average values are as follows:

Malins House - passes in seven or more subjects
- passes in four, five and six subjects and pupils gaining no passes

Smith-Clarke House - passes in one two and three subjects and

Smith-Clarke House - passes in one, two and three subjects and

pupils gaining no passes

Gibson House - passes in one, two and three subjects

The last analyses were utilised to calculate the following rank order list which indicates, in decreasing order, the tendency for high proportions of <u>fifth form pupils</u> in the various houses to be successful in passing one or more 'O' level subjects.

	1955-61	<u> 1962-65</u>	<u> 1955-65</u>
Smith-Clarke	10	6	10
Gibson	7	9	9
Perrens	9	2	. 6
Malins	8	5	5
Stringer	5	ı	2
Ellis	6	7	7
Cresswell	4	10	8
McLachlan	2	4	3
Sparkes	3	3	4
Brook	ı	8	1

The following tables show the proportions of the <u>original intake</u> into the houses which were later successful in passing one or more '0' level subjects.

				The	perio	<b>d</b> 1955	<u>-61</u>				
	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
%	21.8	22.3	23.3	19.5	28.0	24.0	24.6	24.0	24.0	28.3	24.0
Rank	9	8	7	10	2	4	3	4	4	1	
The period 1962-65											
%	43.8	32.3	45.6	41.3	43.4	32 <b>.3</b>	30.8	41.4	45.0	36.1	39.3
Rank	3	8	ı	6	4	8	10	5	2	7	
				The	perio	d 1955	<u>-65</u>				
%	29.0	26.7	30.9	26.4	33.0	26.8	26.5	29.8	30.8	30.8	28.9
Rank	6	8	2	10	1	7	9	5	3	3	

Considering the percentages of the original intakes, in all three periods, which subsequently passed one or more 'O' level subjects, it is apparent that Stringer and Sparkes Houses were consistently the most successful in securing for larger proportions of their intakes some success at 'O' level and that Malins and Gibson Houses were consistently the least successful in achieving this.

The following rank order may be taken as an indication of the degree of success achieved by houses in consistently gaining one or more passes for a large proportion of their intakes over all three periods of time. (259)

1. Stringer

4. Brook

7. Ellis

- 2. Sparkes
- 5. McLachlan
- 8. Cresswell

- 3. Perrens
- 6. Smith-Clarke
- 9. Gibson
- 10. Malins

The previous analyses having been conducted on the basis of numbers of pupils passing various numbers of '0' level subjects, the following tables show the number of subject passes (260) gained by pupils in the different houses together with the numbers of pupils gaining these passes, thus enabling an average subject pass rate per pupil to be calculated.

<sup>259.</sup> The same rank order may be taken as an indication of those houses which were successful in securing one or more passes for a large proportion of their intakes over the two periods 1955-61 and 1962-65

<sup>260.</sup> See Table 88 for precise details concerning numbers of subject passes in each house in each year.

#### Average number of subject passes at 'O' level per pupil entered

				<u>51</u>							
	sc	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
Passes	157	156	153	131	182	167	175	126	173	219	1639
Pupils	63	60	68	55	74	63	62	56	57	67	625
Average	2.5	2.6	2.3	2.4	2.5	2.7	2.8	2.3	3.0	3.3	2.6
	The period 1962-65										
Passes	142	130	135	122	146	106	95	145	159	132	1312
Pupils	51	37	53	44	44	37	34	49	52	44	445

It should be noted that the average number of subject passes per pupil rose by 0.3 of a subject over the period 1962-65 compared with the period 1955-61 and that in the case of every house except Brook and Cresswell, the average number of subject passes per house increased. The following table shows the extent of the increase or decrease in each house.

3.3

2.8

**3.**5 **2.**5 **2.**8

3.9 2.8

3.0

3.1 3.0

2.9

	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
Increase	0.3	0.9	0.2	0.4	0.8	1.2	0.0	0.7	0.1		0.3
Decrease										0.3	
Rank	6	2	7	5	3	1	9	4	8	10	

A closer inspection of the figures in the previous two tables shows that:

In the period 1955-61, pupils in Brook House obtained the most highly significant average number of passes, whilst those in Perrens and McLachlan Houses obtained the least significant average number of passes.

In the period 1962-65, pupils in Ellis and Gibson Houses obtained the most highly significant average number of passes, whilst those in Perrens obtained the least significant average number of passes.

In the period 1955-65, pupils in Brook House and those in Perrens House, obtained the most highly significant and the least highly significant average number of passes, respectively.

An inspection of the figures in the above tables, together with those relating to the various proportions of the original intakes which were successful at '0' level, suggests that the following rank orders may be taken as an indication of the degree of success achieved by houses in securing the twin objectives of (a) ensuring a large proportion of their original intake was successful at '0' level and (b) ensuring that the average number of subject passes achieved per pupil was as high as possible. (261)

	1955-61	<u> 1962-65</u>	<u> 1955-65</u>
Smith-Clarke	8	6	5
Gibson	6	4	4
Perrens	9	6	5
Malins	10	9	10
Stringer	4	2	2
Ellis	4	3	8
Cresswell	2	10	. 8
McLachlan	6	4	8
Sparkes	2	ı	2
Brook	1	8	1

The following rankings represent, in decreasing order, the houses which were most successful in achieving the twin objectives of (a) ensuring that a large proportion of their fifth form was successful at '0' level and (b) ensuring that the average number of subject passes achieved per pupil was as high as possible. (262)

<sup>261.</sup> A comparison of the rankings in this list with those in the previous section relating to subject entries, shows that the agreement between the two rankings was greatest in the case of the period 1955-65 and least in respect of the period 1962-65.

<sup>262.</sup> A comparison of these rankings with those on the previous page indicate that for all practical purposes the rankings relating to the periods 1955-61 and 1962-65 are the same. The greatest discrepancy is in respect of the rankings for the period 1955-65.

	1955-61	1962-65	<u> 1955-65</u>
Smith-Clarke	8	9	9
Gibson	7	5	5
Perrens	10	6	9
Malins	8	7	7
Stringer	4	1	2
Ellis	4	3	7
Cresswell	3	10	5
McLachlan	6	4	4
Sparkes	2	2	2
Brook	1	7	1

The following tables represent the number of subject passes achieved by pupils in each house as a percentage of the number of subject entries made on their behalf.

The period 1955-61											
	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
Passes	157	156	153	131	182	167	<del>1</del> 75	126	173	219	1639
Entries	287	308	315	255	349	332	329	255	335	362	3127
%	54.7	50.6	48.6	51.4	52.1	50.3	53.1	49.4	51.6	60.5	52.4
Rank	2	7	10	5	4	8	3	9	6	1	
m											
The period 1962-65											
Passes	142	130	135	122	146	106	95	145	159	132	1312
Entries	218	184	245	194	234	169	141	225	229	200	2039
%	65.1	70.7	55.1	62.9	62.4	62.7	67.4	64.4	69.4	66.0	64.3
Rank	5	1	10	7	9	8	3	6	2	4	
				The	period	1955-	<u>65</u>				
%	59.2	58.1	51.4	56.4	56.3	54.5	57.5	56.5	58.9	62.5	57.1
Rank	2	4	10	7	8	9	5	6	3	ı	

A consideration of the positive and negative deviations from the mean values indicates that:

In the period 1955-61, Brook House achieved a significantly above-average result and Perrens House a well-below average result compared with other houses.

In the period 1962-65, Gibson House achieved a well-above average result and Perrens House a significantly below-average result compared with other houses.

In the period 1955-65, Brook House achieved a well-above average result and Perrens House an equally well-below average result compared with other houses.

It is to be seen that the number of passes expressed as a percentage of subject entries rose by 11.9% over the period 1962-65 compared with the period 1955-61 and that this was reflected in an increase in the case of every house. The following table shows the extent of that increase in each house.

	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
Increase	10.4	20.1	6.5	11.5	10.3	12.4	14.3	15.0	17.8	5•5.	11.9
Rank	7	1	9	6	8	5	4	3	2	10	

Also of interest is the quality of passes achieved by pupils in particular houses as indicated by the level of the grades obtained. The following table shows the total number of grades obtained by pupils in each house together with the number of subject entries made on behalf of pupils in these houses, thus enabling an average grade per subject entry in each house to be calculated.

### The period 1955-61

	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
Grades	1728	1886	1966	1561	2107	2087	1977	1646	2090	2103	19,151
Subjects	287	308	315	255	349	332	329	255	335	362	3127
Average	6.0	6.1	6.2	6.1	6.0	6.3	6.0	6.5	6.2	5.8	6.1
Rank	8	5	3	5	8	2	8 ·	1	3	10	
				The	period	1962-	<u>65</u>				
Grades	1181	941	1464	1093	1301	904	741	1189	1206	1020	11,040
Subjects	218	184	245	194	234	169	141	225	229	200	2039
Average	5.4	5.1	6.0	5.6	5.6	5•3	5•3	5•3	5•3	5.1	5.4
Rank	4	9	1	2	2	6	6	6	6	9	
				The	period	1955-	<u>65</u>				
Average	5.8	5.8	6.1	5•9	5•9	6.0	5.8	5.9	5.8	5.6	5.8
Rank	7	7	ı	4	4	2	7	4	7	10	

It is to be seen that the average quality of the subject passes improved by 0.7 of a grade over the period 1962-65 compared with the period 1955-61 and that this was reflected in an improvement in the case of every house. The following table shows the extent of that improvement in each house.

	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
Increase	0.6	1.0	0.2	0.5	0.4	1.0	0.7	1.2	0.9	0.7	0.7
Rank	7	2	10	8	9	2	5	1	4	5	

A comparison of the positive and negative deviations from the mean values indicates that:

In the period 1955-61, pupils in McLachlan House achieved a well above and those in Brook House a well below average mean grading per subject.

In the period 1962-65, pupils in Perrens House achieved a well above and those in Brook and Gibson Houses a well below average mean grading per subject.

In the period 1955-65, pupils in Perrens House achieved an above average and those in Brook and Ellis Houses a slightly below mean average grading per subject.

Although there are obvious differences between pupils' attainments in the various houses, these do not appear statistically highly significant so as to enable one to draw the conclusion that pupils were advantaged or otherwise in respect of achievement at '0' level as a consequence of being placed in particular houses. This conclusion was confirmed when the data was subject to analysis of variance tests, (263) the results of which were as follows:

- 1. A significant variation was discovered between the '0' level results for the various years when the data was presented within a single block (1955-65) but no significant variations were found to exist between the houses.
- 2. When the results were examined in two blocks separately (1955-61) and (1962-65), large differences in the results for the first period were discovered between the various years, but, in the second period, the significance of the variations between the years diminished, whilst no significant variations were discovered in either period between the houses.

<sup>263.</sup> These were carried out by computor at the Lanchester College of Technology, Coventry.

#### CERTIFICATE OF SECONDARY EDUCATION - THE RESULTS

During the period 1958-61 a total of 459 pupils completed the five year course, of whom 324 were successful in passing one or more C.S.E. subjects. (264) This figure is equivalent to an average of just over 32 pupils per house over the four year period, although, in fact, the numbers in each house who passed the Certificate of Secondary Education examinations varied considerably, the minimum number being 26 and the maximum 43.

During the four year period 1961-65, out of a total of 539 pupils who completed the five year course, 514 were successful in passing one or more C.S.E. subjects. (265) This represents an average of over 51 pupils per house over the four year period, but, in fact, the numbers in each house varied from a minimum of 48 to a maximum of 56, a much reduced range, however, compared with the earlier period.

Chi-squared tests applied to the data representing the numbers of pupils who were successful in C.S.E. examinations, using the categories of (a) one, two and three passes and (b) four or more passes, produced the following values, neither of which is significant, even at the 5% level of 16.919 associated with 9 degrees of freedom.

The period 1958-61 
$$X^2 = 7.86$$
  
The period 1962-65  $X^2 = 10.45$ 

It may be said therefore, that the achievements of pupils in passing various numbers of C.S.E. subjects does not appear to be related in a significant manner to the house in which they were placed.

The following tables show the proportion of the fifth form in each house which was entered for and was successful in passing various numbers of subjects. (266)

<sup>264.</sup> See Table 89 for precise figures relating to each house over this period.

<sup>265.</sup> See Table 90 for precise figures relating to each house over this period.

<sup>266.</sup> e.g. in the period 1958-61, 29.1% of all fifth form pupils in Smith-Clarke House passed in four subjects or more.

### The period 1958-61

	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
4 or more	29.1	34.0	27.7	28.2	35•3	29.8	33.3	28.2	15.2	27.0	29.0
1, 2, 3	45.4	30.2	44.6	59.0	35•3	34.0	42.3	43.6	47.8	37.8	41.6
O (entered)	3.6	<b>3.</b> 8	4.3		5.9	2.2	4.4	2.6		5.5	3.3

The most significant deviations from the mean values in this table are as follows:

### Positive deviations

Stringer and Gibson Houses - passes in four or more subjects
Malins and Sparkes Houses - passes in one, two and three subjects

### Negative deviations

Gibson, Ellis and Stringer Houses - passes in one, two and three subjects Sparkes House - passes in four or more subjects

### The period 1962-65

	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
4 or more	55.0	47.0	50.9	67.4	34.7	52.0	60.8	54.7	39.7	50.0	50.2
1, 2, 3	38.3	49.1	40.7	40.7	63.3	44.0	37.2	43.4	50.0	46.3	45.2
O (entered)			1.7	1.9					3.4		0.7

The most significant deviations from the mean values in this table are as follows:

### Positive deviations

Malins and Cresswell Houses - passes in four subjects or more Stringer House - passes in one, two and three subjects

### Negative deviations

Cresswell and Smith-Clarke Houses - passes in one, two and three subjects
Stringer and Sparkes Houses - passes in four or more subjects.

### The period 1958-65

	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
4 or more	42.6	40.4	40.6	45.2	35.0	41.2	47.9	43.5	28.8	40.7	40.5
1, 2, 3	41.7	39.4	42.4	48.3	49.0	39.2	39.6	43.5	49.1	42.8	43.5
O(entered)	1.7	1.9	2.8	1.1	3.0	1.0	2.1	1.1	1.9	2.2	1.9

The most significant deviations from the mean values in this table are as follows:

### Positive deviations

Cresswell and Malins Houses - passes in four or more subjects

Sparkes and Stringer Houses - passes in one, two and three subjects

### Negative deviations

Sparkes and Stringer Houses - passes in four subjects or more
Ellis and Gibson Houses - passes in one, two and three subjects

The previous sets of data were used to calculate the following rank order list which shows in decreasing order the tendency for high proportions of fifth form pupils in the various houses to be successful in passing four or more C.S.E. subjects. (267)

<sup>267.</sup> As all pupils in the fifth form take at least one subject compulsorily (Religious Education) at C.S.E. level, there is not much point in calculating a rank order relating to pupils passing in one subject or more.

	1958-61	1962-65	1958-65
Smith-Clarke	5	3	4
Gibson	2	8	8
Perrens	8	6	7
Malins	6	1	2
Stringer	1	10	9
Ellis	4	5	5
Cresswell	3	2	ı
McLachlan	6	4	3
Sparkes	10	9	10
Brook	9	7	6

The following tables show the proportions of the original intakes into the houses which were later successful in passing four or more C.S.E. subjects.

	The period 1958-61														
	SC Gi Pe Ma St El Cr Mc Sp Bk Total														
%	13.4	14.0	11.1	8.9	15.1	11.7	12.1	9.3	5.8	8.2	11.0				
Rank	3	2	6	8	1	5	4	7	10	9					
	The period 1962-65														
%	33.7	23.5	29.7	31.9	17.2	25.5	34.0	29.3	23.0	27.8	27.6				
Rank	2	8	4	3	10	7	1	5	9	6					
				The	perio	d 1958	<u>-65</u>								
%	22.6	18.2	19.7	19.1	16.1	18.0	21.4	18.5	13.6	16.9	18.4				
Rank	1	5	3	4	8	7	2	6	10	9					

Considering the percentages of the original intakes which subsequently passes four or more subjects, in all three periods, it is apparent that Smith-Clarke and Cresswell Houses were consistently the most successful in

securing for larger proportions of their intakes passes in four or more C.S.E. subjects and that Sparkes House was consistently the least successful in achieving this. (268)

The following rank order may be taken as an indication of the degree of success achieved by houses in consistently securing passes in four or more C.S.E. subjects for a large proportion of their intakes over all three periods.

l. Smith-Clarke

4. Malins

7. Ellis

2. Cresswell

5. Gibson

8. Stringer

3. Perrens

6. McLachlan

9. Brook

10. Sparkes

The following table shows the number of subject passes gained by pupils in the various houses together with numbers of pupils gaining these passes, thus enabling an average subject pass rate per pupil to be calculated.

<sup>268.</sup> It should be noted, however, that Sparkes House was consistently the most successful house in securing for a large proportion of its intake passes in one or more G.C.E. subjects. As all pupils take eight subjects, which can be either C.S.E. or G.C.E. or a mixture of both, it is unlikely that a House would be able to secure for a high proportion of its fifth form success in both examinations, when the criteria adopted for one of them is success in passing four or more subjects.

### The period 1958-61

	sc	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
Passes	136	110	108	108	116	100	118	98	76	78	1048
Pupils	43	36	36	34	39	31	36	29	29	26	339
Average	3.2	3.1	3.0	3.2	3.0	3.2	3.3	3.4	2.6	3.0	3.1
Rank	3	6	7	3	7	3	2	ı	10	7	
				The	eriod	1961-6	<u>55</u>				
Passes	227	200	211	218	151	184	205	197	185	200	1978
Pupils	56	49	55	54	48	48	50	52	54	52	518
Average	4.1	4.1	3.8	4.0	3.1	3.8	4.1	3.8	3.4	3.8	3.8
Rank	1	1	5	4	10	5	1	5	9	5	
				The p	eriod	1958-6	<u>55</u>				
Average	<b>3.</b> 7	3.7	3.5	3.7	3.1	3.6	3.8	<b>3.6</b>	3.1	3.6	3.5
Rank	3	4	8	2	10	6	ı	5	9	7	

It should be noted that the average number of subject passes per pupil rose by 0.7 of a subject over the period 1962-65 compared with the period 1958-61 and that this was reflected in an increase in the average number of subject passes in each house as follows:

	SC	Gi	Рe	Ma	St	El	Cr	Мс	Sp	Bk	Total
Increase	0.9	1.0	0.8	0.8	0.1	0.6	0.8	0.4	0.8	0.8	0.7
Rank	2	1	3	3	10	8	3	9	3	3	

An inspection of the figures in the previous tables shows that:

In the period 1958-61, pupils in Sparkes House obtained a well below average number of passes, but that the difference between the other houses was not such as to merit attention being drawn to them.

In the period 1962-65, pupils in Stringer House obtained a well below average number of passes, but that the difference between the other houses was not such as to merit attention being drawn to them.

The following tables show the number of C.S.E. passes achieved by pupils in each house as a percentage of the number of subject entries made on their behalf.

				1110	er rou	1770-0	<u>'</u>				
	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
Passes	136	110	108	108	116	100	118	98	76	78	1048
Entries	176	146	160	143	153	129	153	124	96	97	1377
%	77.2	75.3	67.5	75.5	75.8	77.5	77.1	79.0	79.2	80.4	76.1
Rank	5	9	10	8	7	4	6	3	2	ı	
				The p	eriod	<u> 1962-6</u>	5				
Passes	227	200	211	218	151	184	205	197	185	200	1978
Entries	270	232	235	247	171	229	259	211	242	236	2332
%	84.1	86.2	89.8	88.3	88.3	80.3	79.3	93.4	76.4	84.7	84.8
Rank	7	5	2	3	3	8	9	1	10	6	
				The p	eriod	1958-6	5				
%	81.4	82.0	80.8	83.6	82.4	79•3	78.4	88.1	77.2	83.5	81.6
Rank	6	5	7	2	4	8	9	1	10	3	

A consideration of the positive and negative deviations from the mean values in these tables indicates that:

- In the period 1958-61, Brook House achieved an above average and Perrens House a well below average result compared with other houses.
- In the period 1962-65, McLachlan House achieved an above average and Sparkes House a well below average result compared with other houses.
- In the period 1958-65, McLachlan House achieved an above average and Sparkes House a below average result compared with other houses.

It is to be noted that the number of subject passes expressed as a percentage of subject entries rose by 8.7% over the period 1962-65 compared with the period 1958-61 and that this was reflected in an increase in the case of every house except Sparkes House.

	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
Increase	7.9	6.9	22.3	<b>1</b> 2.8	12.5	2.8	2.2	14.4		4.3	
Decrease									2.8		
Rank	5	6	1	3	4	8	9	2	10	7	

The following table shows the number of grades obtained by pupils in each house together with the number of subject entries made on behalf of pupils in these houses, thus enabling an average grade per subject entry in each house to be calculated.

The period 1958-61											
	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
Grades	647	534	635	528	547	467	569	434	325	334	5020
Subjects	176	146	160	143	153	129	153	124	96	97	1377
Average	3.7	3.7	4.0	3.7	3.6	3.6	3.7	3.5	3.4	3.4	<b>3.</b> 6
The period 1962-65											
Grades	892	758	730	784	516	780	929	636	844	775	7644
Subjects	270	232	235	247	171	229	259	211	242	236	2332
Average	3.3	3.3	3.1	3.2	3.0	3.4	3.6	3.0	3.5	3.3	3.3
The period 1958-65											
Average	3.5	3.4	3.5	3.4	3.3	3.5	3.6	3.2	3.5	3.3	3.4

It is to be seen that the average quality of the subject passes improved by 0.3 of a grade over the period 1962-65 compared with the period 1958-61 and that this was reflected in an improvement in every house except Sparkes House. The following table shows the improvement in each house.

	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
Increase	0.4	0.4	0.9	0.5	0.6	0.2	0.1	0.5		0.1	
Decrease									0.1		
Rank	5	5	1	3	2	7	8	3	10	8	

A comparison of the positive and negative deviations from the mean values in the above tables indicate that there are no significant differences between the average grades obtained by pupils in the different houses in any of the periods that would merit attention being drawn to them.

Although there are apparent differences between the attainment of pupils in the various houses, these do not appear as highly significant and one may, therefore, say that pupils were not significantly advantaged or otherwise in respect of performance in C.S.E. examinations as a result of being placed in particular houses. This conclusion was confirmed when analysis of variance tests were applied to the data in this section and when no significant variations were found to exist between the houses.

### PART SIX

CONCLUSIONS

## CONCLUSIONS

# The nature of the annual intake

- 1. No highly significant differences are to be seen in the manner in which pupils, having V.R.Q.'s in different ranges, were distributed to the various houses during the periods before and after the ending of streaming.
- 2. Any differences that are to be seen in the manner in which pupils having V.R.Q.'s in different parts of the ability range were distributed to houses are seen to be more significant in the period 1962-65, after streaming ended, than in the previous period, in spite of a more determined effort being made in the later period to ensure an equitable distribution of pupils on the basis of their V.R.Q.'s to each house.
- 3. No significant differences are to be seen in the manner in which numbers of selective and non-selective pupils were allocated to houses during the periods before or after the ending of streaming.
- 4. Generally speaking, the distribution of pupils to houses was an equitable one and would not be expected to place particular houses in situations of advantage or otherwise in relation to the subsequent achievements of the pupils assigned to them on the basis of either their V.R.Q. or their status as selective or non-selective pupils.

### Pupils completing the five year course

1. Although there are differences in the 'staying-on' rate of pupils in different houses, there is no significant indication that pupils in particular houses were more or less likely to complete the five year course whether they entered the school during the period before or the period after streaming ended.

The degree of significance which would indicate such a connection was, however, greater during the period 1962-65 than it was during the period 1955-61 and was almost statistically significant at the five-per-cent level.

2. Differences in the 'staying-on' rate of pupils in certain houses, whilst not appearing as statistically significant, suggest that certain houses may have played a part in influencing pupils to remain or not to remain at school to complete the five year course.

Houses coming into the former category are Smith-Clarke, Perrens and McLachlan Houses, the first two of which retained substantially higher proportions of their original intakes for five years and the latter lower proportions than the other houses, in both periods, before and after streaming ended.

3. There are also indications that certain houses may have been more successful in influencing the 'staying-on' rate of pupils during the period that the intake was streamed or unstreamed but were not able to do so under the alternative form of organisation.

Houses coming into this category are:

Stringer House which retained a substantially higher proportion of its original intake during the period when the school was streamed and a substantially lower proportion during the period when the school was unstreamed than did the other houses Gibson and Ellis Houses which retained substantially lower proportions of their intakes during the period when the school was unstreamed than when it was streamed, compared with other houses.

4. Whilst no particular house contributed a significantly larger or smaller proportion of pupils with V.R.Q.'s in different parts of the ability range to the total of those who completed the five year course, there are indications that certain houses were more successful in influencing the 'staying-on' rate of pupils having V.R.Q.'s in certain parts of the ability range, irrespective of the form of organisation of the work groups.

Houses coming into this category are:

Smith-Clarke House which retained a substantially higher proportion of pupils with V.R.Q.'s below 100 and Malins House which retained a substantially lower proportion with V.R.Q.'s over 115, in both periods, before and after the ending of streaming.

5. There are indications that certain houses were more successful in influencing the 'staying-on'rate of pupils having V.R.Q.'s in certain parts of the ability range during the period that the school was streamed or unstreamed, but were unable to do so under the alternative form of organisation.

Houses coming into this category are:

Stringer and Ellis Houses which retained a higher proportion of pupils of all abilities during the period 1955-61 than did the other houses.

Gibson, Stringer and Ellis Houses which retained a lower proportion of pupils of all abilities during the period 1962-65 than did other houses.

Sparkes and Brook Houses which retained a higher proportion of pupils of all abilities during the period 1962-65 than did other houses.

Smith-Clarke House which retained a higher proportion of pupils of V.R.Q. 115 and over and V.R.Q. below 100 during the period 1962-65 than did other houses.

Malins House which retained a lower proportion of pupils of V.R.Q. 115 and over and V.R.Q. below 100 during the period 1962-65 than did other houses.

McLachlan House which retained a lower proportion of pupils of V.R.Q. 100-115 and V.R.Q. below 100 during the period 1962-65 than did other houses.

- 6. Taking into account the different sets of data used to determine differences in 'staying-on' rates of pupils in the various houses, it may generally be concluded that pupils from Perrens, Smith-Clarke and Sparkes Houses, in that order, tended to complete the five year course in larger proportions and those from McLachlan and Gibson Houses in smaller proportions than did those from other houses, irrespective of whether the intake was streamed or unstreamed.
- 7. During the period 1962-65, the differences between the proportions of pupils in various houses having V.R.Q.'s in various parts of the ability range who completed the five year course were greater than in the period before streaming ended. That is to say, the ending of streaming widened the differences between the proportions of pupils in particular houses who remained at school for five years, irrespective of the V.R.Q. range they came from.
- 8. Although no significant variations between the proportions of selective pupils in each house completing the five year course was discovered, there is an indication that certain houses were more and less successful than others in retaining larger proportions of their selective pupils than others, irrespective of the form of organisation of the work groups.

Houses coming into this category are:

Stringer, Sparkes and Brook Houses which retained an above average proportion of selective pupils in the periods before and after streaming ended.

Malins and Ellis Houses which retained a below average proportion of selective pupils in the periods before and after streaming ended.

9. There are indications that certain houses were less successful in influencing the 'staying-on' rate of their selective pupils during the periods that the school was streamed or unstreamed but were not consistently less successful in both periods in doing so.

Houses coming into this category are:

Gibson and Cresswell Houses which retained a well below average proportion of selective pupils in the period 1962-65.

McLachlan House which retained a below average proportion of selective pupils in the period 1955-61.

10. The most highly significant variation between the houses is to be seen in the proportion of non-selective pupils who completed the five year course. Certain houses were more and less successful in retaining larger proportions of their non-selective pupils than were others, irrespective of whether the school was streamed or unstreamed.

Houses coming into this category are:

Smith-Clarke House and Perrens House which retained a significantly above average proportion of non-selective pupils in both periods.

Gibson and, to a lesser extent, Ellis House which retained below average proportions of their non-selective pupils in both periods.

11. There are indications that certain houses were successful in influencing the 'staying-on' rate of their non-selective pupils during the period that the school was streamed or unstreamed but were unable to do so under the alternative form of organisation.

Houses coming into this category are:

Cresswell House which retained an above average proportion of non-selective pupils in the period 1962-65.

Brook House which retained an above average proportion of non-selective pupils in the period 1955-61.

McLachlan House which retained a below average proportion of non-selective pupils in the period 1962-65.

Stringer House which retained an above average proportion of non-selective pupils in the period 1955-61 and a below average proportion in the period 1962-65.

12. Although a significant variation was discovered between the annual results in the period 1955-61 and this was followed by a noticeable drop in the variation between the annual results during the period 1962-65, the variation between the results on a house basis remained statistically non-significant in both periods, the only exception being that relating to non-selective pupils completing the five-year course in the period 1962-65 where the variation between houses was significant at the 5% level.

### General Certificate of Education - the entry

- 1. No significant differences are to be seen between the numbers of pupils entered for 'O' level examinations in the various houses in either the period before or the period after streaming ended, when the data examined included pupils who were in the fifth form but were not entered for any 'O' level subjects.
- 2. No significant differences are to be seen between the numbers of pupils entered for 'O' level examinations in various houses in the period before or the period after streaming ended, when the data included only those pupils who were entered for one or more 'O' level subjects, although there was a strong indication that in the period 1955-61, the entry in certain houses deviated in a significant manner from the general pattern.

Houses coming into this category are:

Sparkes House with significantly larger numbers entered for four or more subjects and smaller numbers entered for one, two and three subjects in the period 1955-61.

Perrens House with smaller numbers entered for four or more subjects and significantly larger numbers entered for one, two and three subjects in the period 1955-61.

3. Although not statistically significant, considerable variation in the proportions of the fifth forms in the various houses which in the periods 1955-61 and 1962-65 were entered for various numbers of 'O' level subjects is to be seen.

The only house which entered a consistently large proportion of its fifth form for a specific number of '0' level subjects, in both periods, was Brook House which entered well above average numbers of its fifth form for seven and more subjects in the period 1955-61 and 1962-65.

4. Although not statistically significant, considerable variation in the proportions of the fifth forms in houses which, in both periods, were entered for one or more 'O' level subjects is to be seen.

The only house which was consistently successful in entering a significantly large proportion of its fifth form for one or more subjects in both periods was Stringer House.

Ellis, Gibson and Cresswell Houses and, to a lesser extent, Malins House, were consistently successful in entering a significantly smaller proportion of their fifth form for one or more subjects in both periods.

Houses which were more successful in submitting a significantly larger or smaller proportion of their fifth form for '0' level in the period 1955-61 were Brook House (larger) and Ellis, Perrens and Smith-Clarke Houses (smaller).

Houses which were more successful in submitting a significantly larger or smaller proportion of their fifth form for '0' level in the period 1962-65 were McLachlan House (larger) and Cresswell and Gibson Houses (smaller).

5. Although not statistically significant, considerable variation in the proportions of the original intakes into houses, in both periods, which were subsequently entered for one or more 'O' level subjects, is to be seen.

Houses which were consistently successful in entering above average proportions of their original intakes, in both periods, for one or more 'O' level subjects were Perrens, Smith-Clarke and Brook Houses.

Houses which were consistently successful in entering below average proportions of their original intakes, in both periods, for one or more subjects were Gibson, Ellis and Cresswell Houses.

6. Although not statistically significant, a variation is to be seen in the average number of subject entries made on behalf of each pupil in the various houses.

The only house whose pupils consistently achieved, in both periods, an above average number of subject entries was Gibson House, whilst Smith-Clarke and Malins Houses, in both periods, achieved a below average number of subject entries per pupil.

7. Although there are variations in the subject entries made on behalf of pupils in different houses, some of which appear to be significant when viewed in relation to the entries of other houses, an analysis of the data relating to the entry as a whole leads to the conclusion that pupils were not significantly advantaged or otherwise in respect of their 'O' level entries as a consequence of being assigned to particular houses.

### General Certificate of Education - the results

1. A significant relationship is to be seen between the numbers of pupils who were successful at '0' level and the houses to which these pupils were assigned when the data included all pupils in the fifth form irrespective of whether they were entered for '0' level examinations or not. This connection was the more significant in the period 1955-61 than in the period 1962-65.

Houses which were largely responsible for the high level of significance in the period 1955-61 were Brook House with significantly better results and Smith-Clarke and Perrens Houses with significantly poorer results than the other houses.

Houses which were largely responsible for the level of significance in the period 1962-65 were Stringer House with significantly better results and Cresswell House with significantly poorer results than other houses.

2. When the data included only those pupils who were entered for '0' level examinations the degree of significance was greatly reduced and a significant relationship was then found to exist between pupils' success at '0' level and the houses to which they were assigned in the period 1955-61 only.

Houses which were largely responsible for the level of significance in the period 1955-61 were Brook House with significantly better results and Perrens and Smith-Clarke Houses with significantly poorer results than the other houses.

3. When the data included only those pupils who gained one pass or more at 'O' level the degree of significance was further reduced in both periods and a barely significant result was found to exist between pupils' success at 'O' level and the houses to which they were assigned in the period 1955-61 only.

The houses which were largely responsible for the level of significance in the period 1955-61 were Brook House and Smith-Clarke House with significantly better results and McLachlan House with significantly poorer results than other houses.

4. Although the proportions of the fifth form in the various houses which were successful in passing one or more 'O' level subjects did not differ in a statistically significant manner, considerable variations are to be seen which suggest that certain houses may have been influential in ensuring that larger or smaller proportions of their fifth forms were successful in passing various numbers of 'O' level subjects.

Stringer House, in both periods, was particularly effective in ensuring that a well above average proportion of its fifth form was successful at 'O' level, whilst Gibson House, in both periods, was successful in ensuring that a below average proportion of its fifth form obtained one or more 'O' level passes.

- 5. Differences between the average number of subject passes gained by each pupil in the various houses were not found to be statistically significant and an increase in the average number of subject passes gained per pupil following the ending of streaming was reflected in an improvement in the performance of pupils in every house except one (Brook House).
- 6. Wide variations are to be seen in the number of subject passes achieved by pupils in the various houses when these are expressed as a percentage of the number of subject entries made on their behalf.

Brook House pupils produced results which were significantly above average in both periods whilst Perrens House pupils produced results which were significantly below average in both periods.

An improvement in the number of passes expressed as a percentage of the entries over the school as a whole, after streaming ended, was reflected in an increase in the performance of pupils in every house compared with the earlier period.

- 7. Variations in the quality of the average grade per subject entry achieved by pupils in various houses, which are not statistically significant, are to be seen. An improvement in the quality of the average grade that followed the ending of streaming, was reflected in an improvement in the performance of pupils in every house compared with the earlier period.
- 8. Whilst it is possible to find significant variations between the 'O' level results as they relate to various years over the period 1955-65, and in the case of particular houses, generally speaking no statistically significant connection was found to exist between the houses and the 'O' level results in any of the periods 1955-61, 1962-65 and 1955-65.

#### Certificate of Secondary Education - the results

- 1. The achievements of pupils in passing various numbers of C.S.E. subjects when only those pupils who were successful in passing at least one subject were included in the analysis, do not appear to be related in a significant manner to the houses in which they were placed.
- 2. The proportions of the fifth forms in the various houses which were successful in passing specific numbers of C.S.E. subjects varied considerably but not in a manner that is statistically significant.

Above average proportions of the fifth forms in Ellis and Cresswell Houses obtained passes in four or more subjects in both periods, whilst below average proportions did so in Sparkes and Brook Houses in both periods.

3. The proportions of the original intakes into houses which were successful in passing various numbers of C.S.E. subjects varied considerably but not in a manner that is highly significant.

Larger proportions of the intakes into Smith-Clarke and Cresswell Houses were more successful in securing passes in four or more subjects in both periods than was the case of other houses.

4. The average number of subject passes per pupil varied from house to house, although not significantly so.

After streaming ended, the average number of subject passes per pupil rose by 0.7 of a subject over the whole school and this was reflected in an increase in the average number of passes in each house.

- 5. The average number of subject passes achieved by pupils as a percentage of the number of subject entries rose by 8.7% after the ending of streaming and this was reflected in an increase in every house except one (Sparkes House).
- 6. The quality of the grades achieved by pupils improved by 0.3 of a grade after the ending of streaming and this was reflected in an improvement in every house except one (Sparkes House).
- 7. Although there are differences in attainment in the C.S.E. examinations by pupils in different houses, these are not to be regarded as statistically significant and it may be said that pupils were not significantly advantaged or disadvantaged in respect of performance in C.S.E. examinations as a consequence of being placed in particular houses.

# PART SEVEN

# APPENDICES

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## APPENDIX I

# THE STATISTICAL INVESTIGATION

IN FORMATION, IN THE FORM OF TABLES, RELATING TO PUPILS
WHO ENTERED THE SCHOOL DURING THE PERIOD SEPTEMBER, 1955
TO SEPTEMBER, 1965, INCLUSIVE, AND WHO EITHER COMPLETED
THE FIVE YEAR COURSE OR WHO REMAINED AT SCHOOL UNTIL, AT
LEAST, THE STATUTORY LEAVING AGE.

Table 1 Numbers of pupils staying for five years and entered for various numbers of '0' level subjects

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
12		5										5
11		3										3
10	ı	5	5	9								20
9	10	8	1	7	7	14					20	67
8	13	7	9	13	16	1	8	12	10	9	13	111
7	10	11	18	4	8	13	10	10	16	17	11	128
6	14	11	8	10	15	6	4	13	7	19	12	119
5	14	7	4	8	5	10	13	14	4	23	19	121
4	3	9	9	4	12	8	11	12	11	13	19	111
3	9	10	14	7	10	6	6	10	10	13	. 16	111
2	13	9	4	11	18	10	7	9	10	12	13	116
1,	13	12	7	12	10	21	15	11	15	21	21	158
0	4	7	23	34	30	24	22	31	17	18	28	238
	104	104	102	119	131	113	96	122	100	145	172	1308

Table 2 Numbers of pupils entered for various numbers of '0' level subjects as a percentage of numbers of pupils in original intakes

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
10+	0.4	4.7	1.8	2.8	-							0.9
9	3.5	2.9	0.4	2.1	2.1	4.7					7.5	2.2
8	4.6	2.6	3.2	4.0	4.9	0.3	3.1	4.6	4.8	3.6	4.9	3.7
7	3.5	4.0	6.5	1.2	2.5	4.4	3.9	3.8	7.7	6.9	4.1	4.2
6	4.9	4.0	2.9	3.1	4.5	2.0	1.6	4.9	3.3	7.7	4.5	3.9
5	4.9	2.6	1.4	2.5	1.6	3.3	5.1	5•3	1.9	9.3	7.1	4.0
4	1.1	3.3	3.2	1.2	<b>3.</b> 6	2.7	4.3	4.6	5•3	5•3	7.1	3.7
3	3.3	3.6	5.1	2.1	3.0	2.0	2.3	3.8	4.8	5•3	6.0	3.7
2	4.6	3.3	1.4	3.4	5•5	3.4	2.7	3.4	4.8	4.9	4.9	3.8
1	4.6	4.4	2.5	3.7	3.0	7.0	5.9	4.2	7.2	8.5	7•9	5.2
0	64.7	64.6	71.5	73.9	69.3	70.2	71.1	65.4	60.3	48.6	46.1	64.7
	100	100	100	100	100	100	100	100	100	100	100	100
O (en	1.4 t'd)	2.6	8.3	10.4	<sub>-</sub> 9.1	8.0	8.6	11.8	8.1	7.3	10.5	7•9

Table 3 Numbers of pupils entered for various numbers of '0' level subjects as a percentage of numbers staying for five years

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
10+	1.0	12.5	4.9	7.6								2.1
9	9.6	7.7	1.0	5•9	5•3	12.4					11.6	5.1
8	12.5	6.7	8.8	10.9	12.2	0.9	8.3	9.8	10.0	6.2	7.6	8.5
7	9.6	10.6	17.6	3.4	6.1	11.5	10.4	8.2	16.0	11.7	6.4	9.8
6	13.5	10.6	7.8	8.4	11.5	5•3	4.2	10.7	7.0	13.1	7.0	9.1
5	13.5	6.7	3.9	6.7	3.8	8.8	13.5	11.5	4.0	15.9	11.0	9.3
4	2.9	8.7	8.8	3.4	9.2	7.1	11.5	9.8	11.0	9.0	11.0	8.5
3	8.7	9.6	13.7	5•9	7.6	5.4	6.2	8.2	10.0	8.9	9.3	8.5
2	12.5	8.7	3.9	9.2	13.7	8.8	7.3	7.4	10.0	8.3	7.6	8.9
1	12.5	11.5	6.9	10.0	7.6	18.6	15.6	9.0	15.0	14.5	12.2	12.1
0	<b>3.</b> 8	6.7	22.6	28.6	23.0	21.2	22.9	25.4	17.0	12.4	16.3	18.2
	100	100	100	100	100	100	100	100	100	100	100	100

Table 4 Numbers of Selective pupils staying for five years and entered for various numbers of 'O' level subjects

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
10+	1	13	5	9								28
9	10	7	1	6	6	13					15	58
8	11	6	9	11	16	ı	7	9	9	7	11	97
7	10	8	16	3	7	13	6	9	15	14	4	105
6	11	8	6	10	14	3	4	11	4	12	6	89
5	12	7	4	8	3	6	9	13	.4	15	7	88
4	2	7	5	3	8	5	10	7	4	8	8	67
3	7	1	9	3	6	4	5	6	4	2	6	53
2	8	1	3	7	6	6	4	3	6	5	6	55
1	2	5	4	6	3	7	9	0	4	6	2	48
0	2	2	6	5	2	ı	4	4	5	1	2	34
	76	65	68	71	71	59	58	62	55	70	67	722

Table 5 Numbers of Non-Selective pupils staying for five years and entered for various numbers of '0' level subjects

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
9		1		1	1	1					5	9
8	2	1		2			1	3	1	2	2	14
7		3	2	1	1		4	ı	1	3	7	23
6	3	3	2		1	3		2	3	7	6	30
5	2				2	4	4	1		8	12	33
4	1	2	4	1	4	3	1	5	7	5	11	44
3	2	9	5	4	4	2	1	4	6	11	10	58
2	5	8	1	4	12	4	3	6	4	7	7	61
ı	11	7	3	6	7	14	6	11	11	15	19	110
0	2	5	17	29	28	23	18	27	12	17	26	204
	28	39	34	48	60	54	38	60	45	75	105	586

Table 6
Numbers of pupils staying for five years and entered for various numbers of 'O' level subjects under the regulations of the Northern Universities Joint Matriculation Board

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
11	· · · · · · · · · · · · · · · · · · ·	3										3
10		2										2
9	3	7	2		2	8						22
8	7	3	6	8	7	4	2					37
7	10	6	4	8	14	7	8	6				63
6	8	10	9	11	7	11	6	7	4			73
5	16	13	16	10	13	3	10	13	14	ı	2	111
4	8	11	8	13	5	5	4	17	10	14	17	112
3	12	11	7	2	8	14	11	17	11	28	24	145
2	9	13	11	6	11	4	12	15	17	32	38	168
1	13	11	15	11	14	20	18	9	20	36	41	208
0	18	14	24	50	50	37	25	<b>3</b> 8	24	34	50	364
*****	104	104	102	119	131	113	96	122	100	145	172	1308

Table 7 Numbers of pupils staying for five years and entered for various numbers of '0' level subjects under the regulations of the Associated Examining Board

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
7											4	4
6										3	10	13
5										11	20	31
4		1		2	1			1	5	19	20	49
3	8	8	3	16	7	3	2	7	19	28	33	134
2	32	33	31	28	30	16	14	21	19	24	20	268
1	<b>3</b> 8	30	29	27	42	<i>3</i> 7	31	47	27	<b>3</b> 0	25	363
0	26	32	39	46	51	57	49	46	30	30	40	446
	104	104	102	119	131	113	96	122	100	145	172	1308

Table 8 Numbers of pupils in first year forms who were subsequently entered for at least pne subject at '0' level

Form	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	28	28	20	12	8	2	1	1	0					100
1956	19	22	21	17	13	5	0	0	0	0	0			97
1957	21	26	15	11	2	2	0	1	1	0	0			79
1958	26	20	20	13	3	1	0	1	0	1.	0	0	0	85
1959	21	23	25	14	5	6	5	1	1	0	0	0	O	101
1960	19	21	18	12	10	7	1	ı	0	0	0	0		89
1961	23	16	15	13	2	1	3	1	0	0				74
1962	17	17	20	23	8	4	2	0	0	0				91
1963	29	9	12	6	12	15	0	0	0					83
1964	14	18	16	14	14	14	18	17	2	0				127
1965	17	15	13	13	13	13	15	18	12	15				144

This table should be see against the background provided in Table 44 where the nomenclature of first year forms is indicated

Table 9 Percentages of each of the first year forms subsequently entered for at least one subject at '0' level

Form	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	82	85	67	41	21	6	3	4	0					35
1956	68	73	78	61	48	19	0	0	0	0	0			35
1957	75	87	52	42	7	7	0	5	4	0	0			29
1958	90	77	77	45	13	3	0	4	0	4	0	0	0	26
1959	78	. 79	78	47	16	23	19	3	3	0	0	0		31
1960	70	88	72	40	42	25	4	4	0	0	0	0		30
1961	82	53	52	46	7	3	11	4	0	0				29
1962	53	57	67	72	28	14	7	0	0	0				35
1963	100	36	60	22	43	65	0	0	0					40
1964	54	64	59	56	56	52	62	63	11	0				51
1965	61	58	57	52	48	46	60	58	44	56				54

Table	10	Num	bers	of '0	' lev	el s	ubject	enti	ries	subse	quent]	y mad	de in	;
				res	pect	of p	upils	in f	irst	year	forms			
Form	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	167	166	104	.44	16	2	2	5	0					506
1956	133	151	152	63	32	14	0	.0	0	0	0			545
1957	131	150	75	45	10	5	0	1	1	0	0			418
1958	137	111	146	48	10	2	0	1	0	1	0	0	0	456
1959	112	135	148	53	16	13	7	1	1	0	0	0		486
1960	94	117	104	42	27	16	ı	1	0	0	0	0		402
1961	105	84	52	59	9	1	3	ı	0	0				314
1962	72	89	98	139	16	5	2	0	0	0				421
1963	193	22	38	29	31	50	0	0	0					363
1964	67	90	59	59	67	61	<b>7</b> 5	76	2	0		•		556
1965	81	72	69	61	48	77	75	92	59	65				699

Table 11 Average number of '0' level subject entries subsequently made per pupil entered in each first year form

Form	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	6.0	5.9	5.2	3.7	2.0	1.0	2.0	5.0	0					5.1
1956	7.0	6.9	7.2	3.7	2.5	2.8	0	0	0	0	0			5.6
1957	6.2	5.8	5.0	4.1	5.0	2.5	0	1.0	1.0	0	0			5•3
1958	5.3	5.6	7.3	3.7	3.3	2.0	0	1.0	0	1.0	0	0	0	5.4
1959	5.3	5.9	5.9	3.8	3.2	2.2	1.4	1.0	1.0	0	0	0		4.8
1960	4.9	5.6	5.8	3.5	2.7	2.3	1.0	1.0	0	0	0	0		4.5
1961	4.6	5•3	3.5	4.5	4.5	1.0	1.0	1.0	0	0				4.2
1962	4.2	5.2	4.9	6.0	2.0	1.3	1.0	0	0	0				4.6
1963	6.7	2.4	3.2	4.8	2.6	3.3	0	0	0					4.4
1964	4.8	5.0	3.7	4.2	4.8	4.4	4.2	4.5	1.0	0				4.4
1965	4.8	4.8	5.3	4.7	3.7	5.9	5.0	5.1	4.9	4.3				4.9

Table 12 Numbers of pupils staying for five years and gaining various numbers of passes at 'O' level, including those not entered

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
11		2										2
10		2	1	ı								4
9	2	1		1							4	8
8	2	3	3			2		1	2	3	6	22
7	5	6	2	2	2	2	3	5	7	4	9	47
6	7	6	7	3	5	7	1	6	12	8	6	68
5	8	8	15	4	12	4	5	4	7	18	14	99
4	12	9	7	11	5	15	10	17	6	10	16	118
3	13	16	8	13	11	12	12	11	9	21	14	140
2	8	20	7	14	12	5	12	16	12	16	26	148
1	17	12	13	16	27	22	17	22	16	28	31	221
0	30	19	39	54	5 <b>7</b>	44	36	40	29	37	46	431
Total	104	104	102	119	131	113	96	122	100	145	172	1308
0 (enter	26 ed)	12	16	20	27	20	14	9	12	19	18	193

<u>Table 13</u> Numbers of pupils gaining various numbers of passes at 'O' level as a percentage of numbers of pupils in original intakes

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
10+		1.5	0.4	0.3								0.2
9	0.7	0.4		0.3							1.5	0.3
8	0.7	1.1	1.1			0.7		0.4	1.0	1.2	2.2	0.7
7	1.8	2.2	0.7	0.6	1.0	0.7	1.2	1.9	3.3	1.6	3.4	1.6
6	2,5	2.2	2.5	0.9	1.5	2.3	0.4	2.3	5.7	3.2	2.2	2.2
5	3.4	2.9	5.4	1.2	3.6	1.3	2.0	1.5	3,3	7.3	5.2	3.3
4	4.2	3.3	2.5	3.4	2.0	5.0	3.9	6.5	2.9	4.0	6.0	3.9
3	4.6	5.8	2.9	4.0	3.3	4.0	5.0	4.2	4.3	8.5	5.2	4.6
2	2.8	7.3	2.5	4.3	4.0	2.0	5.0	6.1	5 <b>•7</b>	6.5	9•7	4.9
ı	6.0	4.4	4.7	4.9	8.2	7.4	7.0	8.4	7.7	11.3	11.6	7.3
0	73.9	69.0	77.3	80.0	76.7	76.6	76.6	68.7	66.0	56.3	52.9	71.0
	100	100	100	100	100	100	100	100	100	100	100	100
0 (ente	9.2 red)	4.4	5.8	6.1	8.2	6.7	5•5	3.4	5•7	7•7	6.7	6.4

Numbers of pupils staying for five years and gaining various numbers of passes at 'O' level as a percentage of numbers of pupils staying for five years

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
10+		3.8	1.0	0.8								0.5
9	1.9	1.0		0.8							2.3	0.6
8	1.9	2.9	2.9			1.8		0.8	2.0	2.1	3 <b>.</b> 5	1.7
7	4.8	5.8	2.0	1.7	1.5	1.8	3.1	4.1	7.0	2.8	5.2	3.6
6	6.7	5.8	6.9	2.5	3.8	6.2	1.0	4.9	12.0	5 <b>.5</b>	3.5	5.2
5	7.7	7.7	14.7	3.4	9.2	3.5	5.2	3.3	7.0	12.4	8.1	7.6
4	11.5	8.7	6.9	9.2	<b>3.</b> 8	13.3	10.4	13.9	6.0	6.9	9.3	9.0
3	12.5	15.4	7.8	10.9	8.4	10.6	12.5	9.0	9.0	14.5	8.1	10.7
2	7.8	19.2	6.9	11.8	9.2	4.4	12.5	13.1	12.0	11.0	15.1	11.3
1	16.3	11.5	12.7	13.4	20.6	19.5	17.7	18.0	16.0	19.3	18.0	16.9
0	28.8	18.3	38.2	45.4	43.5	38.9	37•5	32.8	29.0	25.5	26.7	33.0
	100	100	100	100	100	100	100	100	100	100	100	100
0	25.0	11.5	15.7	16.8	20.6	17.7	14.6	7.4	12.0	13.1	10.5	14.8

(entered)

Numbers of pupils entered for various numbers of '0' level subjects and who achieved a pass in every subject for which they were entered

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
10			1	1								2
9	2										4	6
8	1		1					2	2	3	3	12
7	1		ı				1		5	4	1	13
6	ı				1					1		3
5	1		1			ı		1	1	1	3	9
4			2			3	1		2		1	9
3	ı	1	1	1				2	3	1	2	12
2	1	5			1	1	3	1	2	1	3	18
1	3	3	1	2	6	8	5	6	6	10	8	58
Total	11	9	8	4	8	13	10	12	21	21	25	142

Table 16 Numbers of Selective pupils staying for five years and gaining various numbers of passes at '0' level

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
10+		4	1	1								6
9	2	1		1							4	8
8	2	3	3			2		1	2	3	5	21
7	5	5	2	2	2	2	3	4	6	3	7	41
6	6	6	7	3	5	6	0	4	11	5	5	58
5	8	7	13	2	12	3	4	4	6	15	9	83
4	10	7	5	9	4	11	8	14	2	9	5	84
3	12	13	6	12	10	8	10	8	4	8	7	98
2	5	9	6	11	10	5	9	12	7	8	11	93
ı	12	2	7	14	10	13	13	9	7	11	9	107
O ent'd	12	6	12	11	16	8	7	2	5	7	3	89
0 not e	2 nt'd	2	6	5	2	1	4	4	5	1	2	34
Total	76	65	68	71	71	59	58	62	55	70	67	722

Table 17 Numbers of Non-Selective pupils staying for five years and gaining various numbers of passes at 'O' level

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
9												
8											1	1
7		1						ı	1	1	2	6
6	ı					1	1	2	ı	3	1	10
5		1	2	2		1	1		1	3	5	16
4	2	2	2	2	1	4	2	3	4	ı	11	34
3	1	3	2	1	1	4	2	3	.5	13	7	42
2	3	11	1	3	2		3	4	5	8	15	55
1	5	10	6	2	17	9	4	13	9	17	22	114
0 entere	14 ed	6	4	9	11	12	7	7	7	12	15	104
O not en	2 t'd	5	17	29	28	23	18	27	12	17	26	204
Total	28	39	34	48	60	54	38	60	45	<b>7</b> 5	105	586

Table	18	Total	numbe		<del></del>	achie n-Sele				y Sele	ctive	
Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
S	2642	2446	2000	2609	2600	1897	1395	1767	1298	1849	1949	22,452
N-S	50 <b>9</b>	687	380	390	614	517	465	598	530	1185	1864	7,739
Total	3151	3133	2380	2999	3214	2414	1860	2365	1828	3034	3813	30,191

Table 19 Numbers of pupils staying for five years and passing various numbers of 'O' level subjects under the regulations of the Northern Universities Joint Matriculation Board

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
10		2										2
9												0
8	1	2	2	ı		2						8
7	5	4	. 2	1	2	1	1	2				18
6	5	4	3	0	1	4	2	1	2			22
5	9	7	3	5	10	4	1	4	4		1	48
4	10	9	10	4	6	5	6	4	9	3	3	69
3	7	12	15	15	12	13	14	14	9	12	13	136
2	13	23	8	16	13	13	11	18	15	17	20	167
ı	10	15	11	15	11	15	18	32	18	41	41	227
0 enter	26 ed	12	24	12	26	19	18	9	19	<b>3</b> 8	44	247
O not e	18 ent'd	14	24	50	50	37	25	38	24	34	50	364
	104	104	102	119	131	113	96	122	100	145	172	1308

Table 20 Numbers of pupils staying for five years and passing various numbers of 'O' level subjects under the regulations of the Associated Examining Board

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
6									_	1	3	4
5										4	14	18
4									4	15	12	31
3		1				2		6	13	19	25	66
2	13	16	19	11	3	7	5	17	20	29	30	170
1	30	<b>3</b> 8	31	28	35	33	29	36	25	29	34	348
0 enter	35 ed	17	13	34	42	14	. 13	17	8	18	14	225
O not e	26 nt'd	32	39	46	51	57	49	46	30	30	40	446
	104	104	102	119	131	113	96	122	100	145	172	1308

Numbers of pupils gaining various numbers of 'O' level passes, expressed cumulatively, as a percentage of the numbers of pupils entered for the same numbers of subjects under the regulations of the Northern Universities Joint Matriculation Board

Year	1955	1956	.1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
7 <sup>+</sup>	30.0	38.1	33.3	12.5	8.7	15.8	10.0	33•3				22.0
6 <b>+</b>	39•3	38.7	33.3	7.4	10.0	23.3	18.8	23.1	50.0			25.0
5 <sup>+</sup>	45.5	43.2	27.0	18.9	30.2	33.3	15.4	26.9	33.3		50.0	31.5
4+	57.7	50.9	44.4	22.0	39.6	42.1	33.3	25.6	53.6	20.0	21.1	39.5
3 <sup>+</sup>	57.8	60.6	67.3	50.0	55.4	55.8	58.5	41.7	61.5	34.9	39•5	53•3
2+	68.5	79.7	68.3	72.4	65.7	75.0	66.0	57.3	69.6	42.7	45.7	63.9
ı+	69.8	86.7	69.2	82.6	67.9	75.0	74.6	89.3	75.0	65.8	63.9	73.8

Numbers of pupils gaining various numbers of '0' level passes,

expressed cumulatively, as a percentage of the numbers of
pupils entered for the same numbers of subjects under the
regulations of the Associated Examining Board

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
7 <sup>+</sup>					-							
6 <sup>+</sup>										33•3	21.4	23.5
5 <sup>+</sup>										35•7	50.0	45.8
4+									80.0	60.6	53.7	54.6
3 <sup>+</sup>		11.1				66.7		75.0	70.8	63.9	62.1	51.5
2 <sup>+</sup>	32.5	40.5	55•9	23.9	7.9	47.4	31.3	79•3	86.0	80.0	78.5	57•9
1+	55.1	76.4	79.4	53.4	47.5	75.0	72.3	77.6	88.6	84.3	89.4	73.9

Table 23 Table of entries and results at '0' level under the regulations of the Northern Universities Joint

Matriculation Board

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Entrie	s 380	421	318	317	359	324	249	307	221	245	267	3408
Passes	215	256	175	148	167	167	130	166	137	123	137	1821
Grades	2295	2422	1873	2044	2 <b>33</b> 8	1971	1515	1824	1196	1486	1569	20533
Pupils	86	90	<b>7</b> 8	69	81	76	71	84	76	111	122	944

Table 24 Table of entries and results at '0' level under the regulations of the Associated Examining Board

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
Entrie	s 126	124	100	139	127	78	65	114	142	311	432	1758
Passes	56	73	69	50	41	53	39	88	120	230	305	1124
Grades	856	711	507	955	876	443	345	54 <b>1</b>	632	1548	2244	9658
Pupils	78	72	63	73	80	56	47	76	70	115	132	862

Average number of subject passes per pupil entered for '0' level examinations under the two examining boards

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965 1	Cotal
J.M.B.	2.5	2.8	2.2	2.1	2.1	2.2	1.8	2.0	1.8	1.1	1.1	1.9
A.E.B.	0.7	1.0	0.9	1.5	2.0	1.1	1.2	0.9	1.7	2.0	2.3	1:3
Total	2.7	3.4	3.1	2.3	2.1	2.5	2.3	2.8	3.1	2.8	3.1	2.8

Table 26 Numbers of subject passes as a percentage of total number of subject passes

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
J.M.B	79.3	77.8	71.7	74.7	80.3	75•9	76.9	65.4	53•3	34.8	31.0	61.8
A.E.B	20.7	22.2	28.3	25.3	19.7	24.1	23.1	34.6	46.7	65.2	69.0	38.2
Total	100	100	100	100	100	100	100	100	100	100	100	100

Table 27	Average grade	per sub	ject entry

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
J.M.B.	6.0	5.8	5.9	6.4	6.5	6.1	6.1	5.9	6.0	6.1	5•9	6.0
A.E.B.	6.8	5•7	5.1	6.9	6.9	5.7	5•3	4.7	4.5	5.0	5.2	5•5
Total	6.2	5•7	5•7	6.6	6.6	6.0	5.9	5 <b>.</b> 6	5.0	5•5	5•5	5.8

Numbers of pupils entered for 'O' level examinations and who gained no passes expressed as a percentage of the total number of pupils entered for that particular examining board

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
J.M.B.	30.2	13.3	30.8	17.4	32.1	25.0	25.4	10.7	25.0	34.2	36.1	26.2
A.E.B.	44.9	23.6	20.6	46.6	52.5	25.0	27.7	22.4	11.4	15.7	10.6	26.1
Total	26.0	12.4	20.3	23.5	26.7	22.5	18.9	9.9	14.5	15.0	12.5	18.0

Table 29	Numbers of pupils in first year forms who subsequently p	assed
	at least one 'O' level subject	

Form	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	24	23	15	7	4	0	0	1	0					74
1956	18	20	19	15	9	4	0	0	0	0	0			85
1957	17	20	13	10	2	1	0	0	0	0	0			63
1958	22	16	17	8	2	0	0	0	0	0	0	0	0	65
1959	17	17	19	8	2	6	4	1	0	0	0	0		74
1960	16	18	16	8	5	4	1	1	0	0	0	0		69
1961	20	15	12	9	2	ı	0	1	0	0				60
1962	15	17	18	23	5	4	0	0	0	0				82
1963	27	7	7	6	10	14	0	0	0					71
1964	13	15	13	12	11	14	16	12	2	0				108
1965	16	13	12	12	9	12	14	17	9	12				126

Table 30 Percentage of each first year form subsequently passing one subject or more at '0' level

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	71	70	50	24	11	0	0	4	0					26
1956	64	67	70	54	33	15	0	0	0	0	0			31
1957	61	67	45	39	7	3	0	0	0	0	0			23
1958	76	62	65	28	9	0	0	0	0	0	0	0	0	20
1959	63	59	59	27	7	23	15	3	0	0	.0	0		23
1960	59	75	64	27	21	14	4	4	0	0	0	0		23
1961	71	50	41	32	7	3	0	4	0	0				23
1962	47	57	60	72	17	14	0	0	0	0				31
1963	93	28	35	22	36	61	0	0	0					34
1964	50	54	48	48	44	52	55	44	11	0				44
1965	57	50	52	48	33	43	56	55	33	44				47

Table 31 Numbers of 'O' level subject passes subsequently achieved by pupils in first year forms

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	107	88	48	16	8	0	0	4	0					271
1956	67	99	105	30	20	8	0	0	0	0	0			329
1957	76	89	47	22	6	4	0	0	0	0	0			244
1958	51	50	68	24	5	0	0	0	0	0	0	0	0	198
1959	51	72	57	14	2	6	5	1	0	0	0	0		208
1960	47	63	62	20	17	9	1	ı	0	0	0	0		220
1961	56	48	30	29	4	1	0	1	0	0				169
1962	36	55	57	94	8	4	0	0	0	0				254
1963	149	15	25	20	17	37	0	0	0					263
1964	<b>3</b> 8	66	35	33	50	36	46	47	2	0				353
1965	45	51	49	43	30	44	44	49	<b>3</b> 8	49				442

Numbers of 'O' level subject passes subsequently achieved by pupils in first year forms expressed as a percentage of the number of 'O' level subject entries made in those forms

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	64	53	46	36	50	0	0	80	0					54
1956	50	66	69	48	63	57	0	0	0	0	0			60
1957	58	59	63	49	60	80	0	0	0	0	0			58
1958	37	45	47	50	50	0	0	0	0	0	0	0	0	43
1959	46	53	39	26	13	46	7	100	0	0	0	0		43
1960	50	54	60	48	63	56	100	100	0	0	0	0		55
1961	53	57	58	49	44	100	0	100	0	0				54
1962	50	62	58	68	50	80	0	0	0	0				60
1963	77	68	66	69	55	74	0	0	0					73
1964	57	73	59	56	75	59	61	62	100	0				64
1965	56	71	71	71	63	57	59	53	64	75				63

Table 33 Average number of '0' level subject passes subsequently achieved per pupil entered in each first year form

Year	ı	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	3.8	3.1	2.4	1.3	1.0	0	0	4.0	_					2.7
1956	3.5	4.5	5.0	1.8	1.5	1.6	-	-	-	-	-			3.4
1957	<b>3.</b> 6	3.4	3.1	2.0	3.0	2.0	-	0	0	· <b>-</b>	-			3.1
1958	2.0	2.5	3.4	1.8	1.7	0	-	0	-	0	-	-	-	2.3
1959	2.4	3.1	2.3	1.0	0.4	1.0	1.0	1.0	-	-	-	-		2.1
1960	2.5	3.0	3.4	1.7	1.7	1.3	1.0	1.0	-	-	-	-		2.5
1961	2.4	3.0	2.0	2.2	2.0	1.0	0	1.0	-	-			•	2.3
1962	2.1	3.2	2.9	4.1	1.0	1.0	0	-	-	-		*		2.8
1963	5.1	1.7	2.1	3.3	1.4	2.5	-	-	-					3.2
1964	2.7	3.7	2.2	2.4	3.6	2.6	2.6	2.8	1.0	-				2.8
1965	2.6	3.4	3.8	3.3	2.3	3.4	2.9	2.7	3.2	3.3				3.1

Table 34	Average	grade per	sub	oject e	entry	at '(	le'	vel s	subsequently
		achieved	ру	pupils	s in	first	year	form	ns

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
1955	5.8	6.4	6.5	6.8	6.2	8.5	8.0	5.0	-					6.2
1956	6.4	5•5	5.3	6.3	5•3	5.8	-	-	-	-	-			5•7
1957	5.6	5.7	5.5	6.3	5.9	4.0	-	8.0	9.0	-	-			5•7
1958	7.0	6.4	6.4	6.2	6.2	8.5	-	7.0	-	7.0	-	-	-	6.6
1959	6.7	6.0	7.0	7.1	7.5	6.2	5.1	2.0	7.0	-	-	-		6.6
1960	6.1	6.1	5.8	6.4	5.5	6.2	6.0	5.0	-	-	-	-		6.0
1961	6.0	5•7	6.0	5.8	7.1	6.0	8.7	3.0		-				5•9
1962	6.0	5•5	5.8	5.3	6.4	4.6	8.5	-	-	-				5.6
1963	4.5	5.3	5•7	5.8	6.3	5.1	-	-	-					5.0
1964	5•5	4.8	5.8	5•9	4.8	6.0	5.5	5•7	4.0	-				5•5
1965	5.8	4.9	4.8	5.3	5.2	5.6	5.8	6.2	5.4	5.2				5•5

Table 35 Numbers of pupils staying for five years and entered for various numbers of subjects in the Certificate of Secondary Education

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
8				1	0	0	0	25	6	14	23	69
7				3	6	7	9	17	18	21	22	103
6				11	14	19	22	7	18	12	16	119
5				17	26	12	10	12	10	14	17	118
4				12	13	22	7	17	11	17	24	123
3				8	5	15	16	11	5	31	16	107
2				8	11	13	9	18	9	18	15	101
ı				4	21	8	10	15	22	17	20	117
0				55	35	17	13	0	1	1	19	141
Total				119	131	113	96	122	100	145	172	998

Numbers of pupils entered for various numbers of subjects in the Certificate of Secondary Education expressed as a percentage of the numbers of pupils in each annual intake

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
8				0.3	0	0	0	9.5	2.9	5 <b>.</b> 7	8.6	3.1
7				0.9	1.8	2.3	3.5	6.5	8.7	8.5	8.2	4.7
6				3.4	4.3	6.4	8.6	2.7	8.7	4.9	6.0	5.4
5				5.2	7•9	4.0	3.9	4.6	4.8	5•7	6.4	5.4
4				3.7	4.0	7.4	2.7	6.5	5.3	6.9	9.0	5.6
3				2.5	1.5	5.0	6.3	4.2	2.4	12.6	6.0	4.9
2				2.5	3.3	4.3	3.5	6.8	4.3	7.3	5.6	4.6
ı				1.3	6.4	2.7	3.9	5•7	10.6	6.9	7.5	5•3
0				80.4	70.8	67.9	67.6	53.6	52.7	41.7	42.7	61.0
Total				100	100	100	100	100	100	100	100	100.0
0 (stay	ing)			16.9	10.6	5 <b>.</b> 7	5 <b>.1</b>	0.0	0.5	0.4	7.1	6.4

Numbers of pupils staying for five years and entered for various numbers of subjects in the Certificate of Secondary

Education expressed as a percentage of numbers of pupils staying for five years

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
8				0.8	0	0	0	20.5	6.0	9•7	13.4	6.9
7				2.5	4.6	6.2	9.4	13.9	18.0	14.5	12.8	10.3
6				9.2	10.7	16.8	22.9	5.7	18.0	8.3	9.3	11.9
5				14.3	19.8	10.6	10.4	9.8	10.0	9•7	9•9.	11.8
4				10.1	9.9	19.5	7.3	13.9	11.0	11.7	14.0	12.3
3				6.7	3.8	13.3	16.7	9.0	5.0	21.4	9•3	10.7
2				6.7	8.4	11.5	9.4	14.8	9.0	12.4	8.7	10:2
1				3.4	16.0	7.1	10.4	12.3	22.0	11.7	11.6	11.7
0				46.2	26.7	15.0	13.5	0.0	1.0	0.7	11.0	14.1
Total				100	100	100	100	100	100	100	100	100

Table 38 Numbers of pupils staying for five years and gaining various numbers of passes in the Certificate of Secondary Education

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
8								11	1	7	7	26
7					ı	1	3	13	7	8	6	39
6				7	4	10	12	9	17	12	22	93
5				4	10	12	15	16	14	22	25	118
4				8	20	15	11	19	14	17	24	128
3				12	17	23	20	15	11	36	23	157
2				16	15	19	9	21	11	22	21	134
ı				13	20	14	13	17	23	19	24	143
O (ente	red)			4	9	2	0	1	1	1	1	19
Total				64	96	96	83	122	99	144	153	857

Numbers of pupils gaining various numbers of passes in the Certificate of Secondary Education expressed as a percentage of numbers of pupils in the original intake

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
8								4.2	0.5	2.8	2.6	1.2
7					0.3	0.4	1.2	4.9	3 <b>.3</b>	3.2	2.2	1.8
6				2.1	1.2	3.3	4.7	3.4	8.1	4.9	8.2	4.2
5				1.2	3 <b>.</b> 6	4.0	5•9	6.1	6.7	8.9	9.4	5.4
4				2.5	6.1	5.0	4.3	7.2	6.7	6.9	9.0	5.8
3				3.7	5.2	7.7	7.8	5•7	5.3	14.6	8.6	7.1
2				4.9	4.6	6.4	3.5	8.0	5.3	8.9	7•9	6.1
1				4.0	6.1	4.7	5.1	6 <b>.5</b>	11.0	7.7	9.0	6.5
0				81.6	73.6	68.6	67.6	54.0	53.1	42.1	43.1	61.8
Total				100	100	100	100	100	100	100	100	100
O (ente	red)			1.2	2.7	0.7	0.0	0,4	0.5	0.4	0.4	0.9

Numbers of pupils staying for five years and gaining various numbers of passes in the Certificate of Secondary Education expressed as a percentage of the numbers of pupils staying for five years

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
8								9.0	1.0	4.8	4.1	2.6
7					0.8	0.9	3.1	10.7	7.0	5•5	3.5	3.9
6				5•9	3.1	8.8	12.5	7.4	17.0	8.3	12.8	9•3
5				3.4	7.7	10.6	15.6	13.1	14.0	15.2	14.5	11.8
4				6.7	15.3	13.3	11.4	15.6	14.0	11.7	14.0	12.8
3				10.1	13.0	20.4	20.8	12.3	11.0	24.8	13.4	15.7
2				13.4	11.5	16.8	9.4	17.2	11.0	15.2	12.2	13.4
1				10.9	15.3	12.4	13.5	13.9	23.0	13.1	14.0	14.3
0				49.6	33.6	16.8	13.5	0.8	2.0	1.4	11.6	16.0
Total		•		100	100	100	100	100	100	100	100	100
O (ente	red)			3.4	6.9	1.8	0.0	0.8	1.0	0.7	0.6	1.9

Numbers of pupils entered for various numbers of subjects in the Certificate of Secondary Education and who achieved a pass in every subject for which they were entered

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
8								11	1	7	7	26
7					1	1	3	7	6	7	3	28
6				3	2	5	9	3	8	6	9	45
5					5	6	4	6	7	12	12	52
4				1	2	10	4	13	8	13	19	70
3				2	4	9	13	7	4	29	15	83
2				2	6	10	8	17	9	17	15	84
1				4	13	8	10	14	22	17	20	108
Total				12	33	49	51	78	65	108	100	486

Numbers of pupils who achieved a pass in every subject for which they were entered in the Certificate of Secondary

Education expressed as a percentage of the numbers of pupils entered for that number of subjects

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
8								44.0	16.7	50.0	30.4	37.7
7					16.7	14.3	33.3	41.2	33.3	33.3	13.6	27.2
6				27.3	14.3	26.3	40.9	42.9	44.4	50.0	56.3	37.8
5					19.2	50.0	40.0	50.0	70.0	85.7	70.6	44.1
4				8.3	15.4	45.5	57.1	76.5	72.7	76.5	79.2	56.9
3				25.0	80.0	60.0	62.5	63.6	80.0	93•5	93.8	77.6
2				25.0	54.5	76.9	88.9	94.4	100.0	94.4	100.0	83.2
1				100.0	61.9	100.0	100.0	93•3	100.0	100.0	100.0	92.3
Total				18.8	34.3	51.0	61.4	63.9	65.7	75.0	65.4	57.9

Numbers of pupils gaining various numbers of passes in the Certificate of Secondary Education, expressed cumulatively as a percentage of the number of pupils entered for the same number of subjects

Year	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
7 <sup>+</sup>					16.7	14.3	33•3	57.1	33.3	42.9	28.9	37.8
6 <b>+</b>				46.7	25.0	42.3	48.4	67.3	59•5	57.4	57•4	54•3
5 <sup>+</sup>				34.4	32.6	60.5	73.2	80.3	75.0	80.3	76.9	67.5
4+				43.2	59•3	63.3	85.4	87.2	84.1	84.6	82.4	75•9
3 <sup>+</sup>				59.6	81.3	81.3	95•3	93.3	94.1	93.6	90.7	87.8
2+				78.3	89.3	90.9	95•9	97.2	97.4	97.6	96.2	93•9
1+				93.8	90.6	97•9	100.0	99.2	99.0	99•3	99•3	97.8

# THE FORM SYSTEM

Table 44	V.R.Q. range	of r	upils	in	first	year	forms

1955	lA	18	10	1D	1E		1G	1H				18	lT	Total
Max	140	128	127	117	118		105	101				98	91	109
Min	129	118	113	108	106		98	96				84	76	
1956	1A	1B	1C	1D	1E	1F	1G	1H	lK			18	1T	
Max	136	125	125	124	116	110	105	103	97			90	85	108
Min	125	119	114	107	101	98	98	94	90			82	75	
1957	lA	18	10	1D	1E	1F	1G	lH	lK			ls	1T	
Max	139	124	126	126	118	113	107	102	96			97	89	107
Min	124	114	108	111	101	99	92	94	86			77	77	
1958	lA	18	1C	10	1E	1F	1G	lH	lK	10	lR	ıs	lT	
Max	133	123	120	121	111	106	102	98	97	96	90	89	85	104
Min	124	118	109	110	100	100	98	96	90	87	85	79	79	
1959	1A	<b>1</b> B	1C	1D	1E	1F	1G	1H	1K	12		18	1T	
Max	128	121	117	128	109	105	102	99	98	100		90	83	104
Min	121	117	109	108	102	99	95	95	91	87		76	75	
1960	lA	18	10	1D	1E	1F	1G	lH	lK	1Q		1\$	1T	
Max	140	124	118	120	110	104	99	96	92	95		89	83	102
Min	125	119	105	108	105	99	9 <b>5</b>	92	89	83		74	70	
1961	lA	18	10	lD	1E	1F	1G	lH				18	1T	
Max	136	120	116	119	109	101	101	100				87	77	104
Min	120	117	101	105	95	97	92	76				78	70	
1962	1A	1B	10	1D		1E	lF	1G		lH		18	1T	***************************************
Max	135	131	129	128		109	107	105		96		91	78	105
Min	105	108	108	108	<b>△</b>	93	93	88		86		78	70	
1963	18		1T	1H	lW	1L	lN		10	1E		lA		
Max	134		121	129	127	132	128	-	103	101		88		103
Min	105		84	89	92	85	90		72	72		70		
1964	1T	1H	1E	lW	10	1D	lN	15		lL		1A		
Max	135	135	132	130	129	122	125	124		94		85		104
Min	86	84	87	86	84	88	85	84		71		70		
1965	1T	1H	1E	lW	10	1D	1L	lA	lN	18				
Max	132	123	<b>13</b> 5	121	125	121	122	125	122	123				103
Min	70	75	70	79	75	81	75	72	70	76				

1955	2A	2B	2C	2D		2E	2 <b>F</b>	2G	211				28	2T
Max	140	138	139	129		133	124	117	107				107	101
Min	113	117	111	103		98	98	98	81				79	76
1956	2A	2B	2C	2D		2E	2 <b>F</b>	2G	2H	2K			2\$	2T
Max	136	125	125	126		116	116	107	103	103			97	108
Min	114	107	114	109		101	98	85	91	85			82	75
1957	2 <b>A</b>	2B	2 <b>C</b>	2 <b>D</b>	2D,	2E	2F	2G	2H	2K			2\$	2T
Max	139	124	126	126	113	118	113	109	102	96			97	89
Min	124	114	108	106	106	99	94	92	94	86			77	<b>77</b>
1958	2 <b>A</b>	2B	2C	2D		2E	2 <b>F</b>	2G	2H	2K	2ତ୍ୱ	2R	28	2 <b>T</b>
Max	133	123	219	121		111	108	102	101	98	95	95	90	96
Min	124	110	109	106		100	100	98	95	90	87	83	79	79
1959	2A	2B	2C	2D	2D,	2E	2F	2G	2H	2K	2Q		2\$	2T
Max	128	121	117	128	109	112	105	109	99	98	100		98	83
Min	121	117	109	108	9 <b>9</b>	103	100	95	95	88	87		76	75
1960	2A	2B	2C	2D		2E	2 <b>F</b>	2G	2H			. <u> </u>	2\$	2T
Max	140	124	120	118		109	104	98	92				95	86
Min	125	119	105	105		99	90	87	82				76	70
1961	2A	2B	2C		2D	2E		2F	2G		2H		2\$	2T
Max	136	131	126		119	115		104	106		98		87	86
Min	117	105	95		101	101		89	88	^	76		75	70
1962	2A	2B	2C		2D	2E	2F		2G	2H	2 <b>K</b>		2 <b>\$</b>	
Max	131	135	128		125	123	111		106	103	104		89	
Min	109	108	108		88	93	94		78	78	77		70	
1963	25		2T	2H	2W	2 <b>L</b>	2N		2D	2E	·		2 <b>A</b>	
Max	134		121	129	127	132	128		103	101			88	
Min	105		84	89	92	85	90		72	72 ~			70	
1964	2T	2H	2W	20	2D	2N			28	2L			2 <b>A</b>	
Max	135	135	130	129	122	132			108	100			85	
Min	89	92	85	85	88	92			81	71			70	
1965	ŹT	211	2E	2W	20	2D	2L	2A	2N	25				<del></del>
Max	132	123	135	121	<b>1</b> 25	121	122	125	122	123				
Min	70	75	70	79	75	81	75	72	70	76				

1955	3K	3L	3M	3N	3P	30	. 3Q	3R	<b>3</b> S	3 <b>T</b>				
Max	140	138	139	129	133	124	117	107	107	101				
Min	113	117	111	103	98	98	98	81	79	76				
1956	3K	3L	3M	3N	3P	30	<b>3</b> Q	3R	3S	3 <b>T</b>				
Max	136	129	130	127	123	119	107	109	103	108				-
Min	114	107	113	101	98	102	85	85	82	75				
1957	3K	3L	3M	3N	3P	30	<b>3</b> Q	3R	3S	3T	3V	3X		
Max	133	139	132	133	130	113	112	118	114	108	97	89		
Min	110	107	107	106	107	96	89	89	91	86	77	77		
1958	3K	3L	3M	3N	3P	30	<b>3</b> Q	3R	3 <b>S</b>	<b>3</b> T	3 <b>V</b>	3X	3Z	
Max	131	133	129	129	126	110	111	108	105	101	95	90	96	
Min	109	100	105	104	106	95	90	87	87	85	80	<b>7</b> 9	79	
1959	3K	3L	3M	3N	3P	30	<b>3</b> Q	3R	3S	3 <b>T</b>	3 <b>V</b>	3X		3D
Max	127	123	128	125	114	128	112	108	109	109	95	90		109
Min	110	114	105	95	99	91	88	91	89	87	76	75	Ā	102
1960	3A	3B	3C	3D	3D <sub>1</sub>	3D <sub>2</sub>	3E	3F	3G	3H		3S	3T	
Max	140	126	127	129	129	126	115	104	101	98		89	83	
Min	119	111	105	93	100	98	87	87	83	76		73	70	
1961	3A	3B	3C		3D	3E		3F	3G	3H			3S	
Max	136	124	126		118	115		102	101	104			87	
Min	117	105	104		95	95		84	84	76			70	
1962	3A	3B	3C		3D	3E	3F		3G	3H	3K		3S	
Max	131	135	128		124	123	113		106	108	108		89	
Min	109	108	108		88	91	88		78	78	77		70	
1963	3S		3T		3L		3N	3D	3E		3 <b>A</b>			
Max	134		132	128	121		116	117	114		88			
Min	105		103	89	91		72	72	76		70			
1964	3T	3H	3W	30	3D	3N		38	3L		3A			
Max	135	135	130	129	122	132		108	100		85			
Min	. 89	92	85	85	88	92		81	71		70			
1965	3T	3H	3E	3W	3D	3S	3L		3A	3N		30		
Max	132	123	135	122	<b>1</b> 25	123	125		107	112		104		
Min	99	81	87	79	92	85	82		70	70		70		

1955	4K	$_{4 ext{L}}$	4M	4N	4P	40	4Q	4R	4s	4 <b>T</b>					
Max	140	138	139	129	133	124	117	107	107	101			<del></del>	* · · · · · · · · · · · · · · · · · · ·	
Min	113	117	111	103	98	98	98	81	79	76					
1956	4K	4L	4M	4N	4P	40	4Q	4R	48	4 <b>T</b>					
Max	136	129	130	127	123	119	107	109	103	108					
Min	114	107	113	101	98	102	85	85	82	75					
1957	4K	4L	4M	4N	4P	40	4ର୍	4R	48	4 <b>T</b>	4 <b>V</b>				
Max	133	139	132	133	130	119	115	118	114	93	85				
Min	110	107	107	106	107	96	89	83	86	77	7 <b>7</b>				
1958	4K	4 <b>L</b>	4M	4N	4P	40	4Q	4R	4S	4T	4 <b>V</b>	4Z	4 <b>X</b>		
Max	131	133	129	129	126	110	111	108	105	101	95	96	90		
Min	109	100	105	104	106	95	90	87	87	85	80	79	79		
1959	4K	4L	4M	4N	4P	40	42	4R	4R <sub>1</sub>	48	4T	4V	4X		4D
Max	127	123	128	125	114	128	112	108	102	109	109	97	89		109
Min	110	114	105	95	9 <b>9</b>	91	88	91	93	89	79	76	75		102
1960	4A	4B	4C		4D	4D <sub>1</sub>	4D <sub>2</sub>		4E	4 <b>F</b>	4G	4H		48	4 <b>T</b>
Max	140	126	129		129	129	126		115	109	101	92		95	94
Min	119	111	82		93	100	98		76	87	70	79		73	70
1961	4A	4B	4C		4D	4E		4F	4G	4H				48	
Max	136	124	126		118	115		102	101	104				90	
Min	117	105	104		95	95		84	84	76				70	
1962	4A	4B	4C		4D	4E	4F		4G	4H	4K			4S	
Max	131	135	128		124	123	113		106	108	108			89	
Min	109	108	108	_	88	91	88		78	<b>7</b> 8	77		-	70	
1963	4s		4T	4W	4L		4N	4D	4E					4A	
Max	134		132	128	121		116	117	114					88	
Min	105		103	89	91		72	72	76					70	
1964	4 <b>T</b>	4H	4W		40	4D	4N		48	4L	4A				
Max	132	135	135		118	125	119		102	108	104				
Min	102	101	92		85	88	89		74	70	71				
1965	4 <b>T</b>		4H	4E		4W	45	4D	4L		4 <b>A</b>		4 <sub>N</sub>	40	
Max	125		132	122	,	135	117	121	118		107		104	108	
Min	104		97	98		91	79	82	81		70		70	70	

1955	5K	5L	5M	5N	5P	5R	Average
Max	140	138	139	129	133	119	122
Min	113	117	113	103	98	103	
1956	5K	5L	5M	5N	5P	5R	
Max	136	129	130	125	123	109	119
Min	114	107	114	101	<b>9</b> 8	95	
1957	5K	5L	5M	5N	5P	5R	
Max	133	139	132	126	130	111	118
Min	110	107	108	106	107	90	2.20
1958	5K	5I.	5M	5N	5P	5R	
Max	131	133	129	127	126	110	115
Min	109	100	105	104	114	84	
1959	5K	5L	5M	5N	5P	5R	
Max	127	123	128	125	113	114	112
Min	110	103	105	95	89	99	
1960	5A	5B	5C	5D	5D <sub>1</sub>	5E	
Max	140	126	129	129	129	115	114
Min	108	111	100	100	101	84	
1961	5 <b>A</b>	5B	5C	5D	5E		
Max	136	124	124	118	101		114
Min	115	105	104	103	90		
1962	5A	5B	5C	5D	5E		
Max	131	135	128	124	121		111
Min	109	100	94	88	90		
1963	5 <b>A</b>	5B	5C	5D			
Max	134	128	124	117			111
Min	105	89	91	72	•		
1964	5 <b>T</b>	5H	5W	50	5N	5D	
Max	132	135	130	118	119	125	110
Min	102	91	92	85	89	89	- <del></del>
1965	5 <b>T</b>	5H	5E	5W	5S	5D	
Max	125	132	122	135	117	121	107
Min	104	9 <b>7</b>	98	70	81	75	1

Table 49 Numbers of pupils completing the five-year course having V.R.Q.'s in various ranges

V.R.Q.	1955	56	57	58	59	60	61	62	63	64	65	Total
Over 130	13	5	7	2	0	1	2	2	2	2	2	38
116-130	63	67	63	67	54	54	43	<b>3</b> 8	26	42	38	555
100-115	26	30	25	37	59	45	41	65	61	85	95	569
85-99	2	2	7	12	18	12	10	17	9	16	28	133
Below 85	0	0	0	1	0	1	0	0	2	0	9	13
Totals	104	104	102	119	131	113	96	122	100	145	172	1308

									0=		•	
Month	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Totals
Jan	26	31	22	38	27	24	18	24	18	22	28	278
Feb	23	18	19	19	32	24	21	13	10	19	30	228
Mar	35	27	30	28	35	22	25	30	26	21	29	308
Apl	19	22	27	30	23	29	16	22	14	22	11	235
May	25	30	31	30	23	26	18	20	24	18	25	270
June	25	20	20	27	24	21	18	18	14	23	30	240
July	28	24	16	20	34	24	26	24	18	16	16	246
Aug	24	24	25	32	23	33	27	26	14	20	22	270
Sept	15	19	21	29	31	17	28	29	21	23	24	257
Oct	18	19	26	25	23	22	18	16	16	17	17	217
Nov	24	20	19	29	22	23	15	20	17	19	17	225
Dec	21	20	21	19	32	34	26	21	17	27	18	256
Total	1 283	274	277	326	329	299	256	263	209	247	267	3030

Table 50 Months of birth of all pupils in the original intake

Table	<u>51</u>	Mont	hs of	birth	of sel	ective	pupil	s in t	he ori	ginal	intak	2
Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	12	11	8	7	3	7	4	10	6	9	7	84
2	6	6	4	7	7	4	6	1	3	6	9	59
3	9	9	6	2	9	8	12	10	11	6	10	92
4	6	5	9	6	7	6	5	4	5	5	3	61
5	6	10	9	8	8	2	5	7	10	.8	9	82
6	9	8	6	10	7	3	6	6	1	8	5	69
7	12	5	5	5	6	5	8	7	6	5	3	67
8	10	9	7	6	5	8	2	8	5	7	7	74
9	7	3	9	10	9	6	14	12	7	9	9	95
10	7	5	7	5	12	11	9	7	9	5	4	81
11	10	9	9	10	7	8	7	5	6	6	4	81
12	3	6	8	5	8	8	8	7	6	7	5	71

75 916

Table	52	Mont	hs of	birth	of non	-selec	tive	pupils	in the	origi	nal ir	ntake
Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	14	20	14	31	24	17	14	14	12	13	21	194
2	17	12	15	12	25	20	15	12	7	13	21	169
3	26	18	24	26	26	14	13	20	15	15	19	216
4	13	17	18	24	16	23	11	18	9	17	8	174
5	19	20	22	22	15	24	13	13	14	10	16	188
6	16	12	14	17	17	18	12	12	13	15	25	171
7	16	19	11	15	28	19	18	17	12	11	13	179
8	14	15	18	26	18	25	25	18	9	13	15	196
9	8	16	12	19	22	11	14	17	14	14	15	162
10	11	14	19	20	11	11	9	9	7	12	13	136
11	14	11	10	19	15	15	8	15	11	13	13	144
12	18	14	13	14	24	26	18	14	11	20	13	185
	186	188	190	245	241	223	170	179	134	166	192	2114

Table	<u>54</u>		mbers umber	of pos			econd es co							
1955	2A	2B	2C	2D		2E	2F	2G	2H			<del>- 11 1</del>	28	2T
	30	30	24	28		32	29	26	29			<del></del>	26	29
	28	23	20	14		15	3	0	1				0	0
%	93	77	83	50		47	10	0	3				0	0
1956	2A	2B	2C	2 <b>D</b>		2E	2F	2 <b>G</b>	2H	2K			2\$	2T
	30	31	26	28		27	27	24	24	20			21	16
	22	24	20	16		14	5	1	1	1			0	0
%	73	77	77	57		52	19	4	4	5			0	0
1957	2 <b>A</b>	2B	2C	2 <b>D</b>	2D <sub>1</sub>	2E	2F	2G	2H	2K			28	2 <b>T</b>
	28	30	29	28	10	20	25	26	20	25			20	16
	23	27	18	16	3	3	2	7	1	2			0	0
%	82	90	62	57	30	15	8	27	8	8			0	0
1958	2A	2B	2C	2D		2E	2F	2G	2H	2 <b>K</b>	20	2R	28	2T
	28	27	27	33		23	25	23	27	25	24	27	24	13
	27	23	22	18		9	6	2	5	2	3	1	1	0
%	96	85	82	55		39	24	9	19	8	13	4	4	0
1959	2A	2B	2C	2 <b>D</b>	2D <sub>1</sub>	2E	2 <b>F</b>	2G	2H	2K	20,		28	2T
	27	29	32	30	8	24	24	27	33	33	27		24	11
	21	24	26	18	5	7	8	10	4	6	2		0	0
%	78	83	81	60	63	29	33	37	12	18	7		0	0
1960	2 <b>A</b>	2B	2C	2D		2E	2 <b>F</b>	2G	2H	-			2\$	2T
	27	24	30	34		31	36	33	34				27	23
	20	21	23	19		14	8	4	3				1	0
%	74	88	77	56		45	22	12	~ 9				4	0
1961	2 <b>A</b>	2B	2C		2 <b>D</b>	2E		2F	2 <b>G</b>		2H		2\$	2T
	31	33	27		23	26		28	32		26		23	7
	21	26	12		9	14		9	5		0		0	0
%	68	79	44	·	39	54		32	16	^_	0		0	0
1962	2A	2B	2C		2D	2E	2 <b>F</b>		2G	2H	2K	2\$		
	30	31	31		30	29	29		24	27	22	10		
o/	23	25	24		11	17	12		4	1	5	0		
%	77	81	77		37	59 	41		17	4	23	0		
1963	2 <b>S</b>		2T	2H	2W	2L	2N		2D	2E			2A 9	
	29		25	21	27	29	23		24 2	22			9	
۰/	29		13	14	9	14 48	17			2			0	
<u>%</u> 1964	100 2T	2H	52 2W	20	33 2D	2N	74		9 2 <b>S</b>	9 2L			2 <b>A</b>	
1704	30	2n 31	2W 30	20 31	2D 31	2N 31			28	22			2 <b>A</b> 14	
	18	28	24	23	21	23			6	2			0	
%	60	90	80	74	68	74			21	9			0	
_ <del>/2</del> 1965	2T	2H	2E	2W	20	2D	2L	2 <b>A</b>	2N	2S				<del></del>
-,-,	28	26	23	25	27	28	25	30	27	28				
	20	17	16	18	15	16	16	21	13	20				
%	71	65	70	72	56	57	64	70	48	71				

Table	<u>&gt; 55</u>		mbers umber		upils perce									
1955	3K	3L	3M	3N	3P	30	<b>3</b> Q	3R	3S	3T				
	32	24	29	27	27	30	30	30	26	28	<del></del>		<del></del>	
	29	22	20	15	14	3	1	0	0	0				
%	91	92	69	56	52	10	-3	0	0	0				
1956	3K	3 <b>L</b>	3M	3N	3P	30	<b>3</b> Q	3R	38	3 <b>T</b>	<u> </u>			<del></del>
	30	31	30	28	26	26	29	29	27	18				
	25	26	20	19	9	3	1	1	0	0				
%	83	84	67	68	35	12	3	3	0	0				
1957	3K	3L	3M	3N	3P	30	<b>3</b> Q	3R	38	3 <b>T</b>	3 <b>V</b>	3 <b>X</b>		
	25	26	26	24	24	21	25	24	26	20	20	16		
	21	23	22	12	10	5	3	2	2	2	0	0		
%	84	89	85	50	42	24	12	8	8	10	0	0		
1958	3K	3L	3M	3N	3P	30	<b>3</b> Q	3R	3S	3T	3 <b>V</b>	3X	<b>3</b> Z	
	28	36	19	25	16	30	26	24	27	29	26	27	13	
	25	33	15	14	9	8	3	4	4	2	1	1	0	
%	89	92	79	56	56	27	12	17	15	7	4	4	0	
1959	3K	3L	3M	3N	3P	30	<b>3</b> ૨	3R	3S	3 <b>T</b>	3V	3X		3D
	29	15	27	28	24	28	31	29	30	26	29	19		14
	26	14	26	19	13	6	8	9	4	1	1	0		4
%	90	93	96	68	54	21	26	31	13	4	3	0		29
1960	3A	3B	3C	3D	3D <sub>1</sub>	3D <sub>2</sub>	3E	3F	3G	3H		38	31	
	28	15	25	27	28	20	30	32	29	28		20	17	
٥/	23	15	21	14	16	8	6	6	3	1		0	0	
%	82	100	84	52	57	40	20	19	10	4		0	0	
1961	3A	3B	3C		3D	3E		3F	3G	3H			3S	
	28	33 26	28		32	27 8		29 4	31	31 2			17 0	
%	20	26 79	21		12 38	30 30		14	2 7	3 10			0	
1962	71 3A	79 3B	75 3C		30	3E	3F	T.4	3G	3H	3K			
1902	30	30	31		28	ور 29	28		23	27	25		12	
	23	25	24	·	11	18	12		4	1	4		0	
%	77	83	- · 77		39	64	43		17	4	15		0	
1963	 3S		3T	3W	3 <u>L</u>		3N	3D	3E			3A		
-,-,	29		30	27	30		30	29	26			8		
	29		13	18	24		5	7	4			0		
%	100		43	67	80		17	24	15			0		
1964	3T	3H	3W	30	3D	3N			3S	3L	· · · ·	- 3A		
	30	31	30	30	31	30			28	22		14		
	18	28	24	23	21	23			6	2		0		
%	60	90	80	77	68	74			21	9		0		
1965	3T	3H	3E	3W	3D	3S	3L		3A	3N		30		
	26	28	25	28	31	30	27		24	25		23		
	23	20	23	23	22	24	23		5	5		4		
%	89	71	92	82	71	80	85		21	20		17		

	56								forms					
1955	4K	4L	4M	4N	4P	40	4Q	4R	4s	4 <b>T</b>				
	31	24	29	28	27	30	30	30	26	28	- <del>i</del>			
	28	22	20	16	14	3	1	0	0	0				
%	90	92	69	57	52	10	3	. 0	0	0				
1956	4K	4L	4M	4N	4P	40	4Q	4R	48	4T				
	29	30	31	28	26	27	29	29	27	18				
	25	25	21	19	9	3	1	1	0	0				
%	86	83	68	68	35	11	3	3	0	0				
1957	4K	4 <b>L</b>	4M	4N	4P	40	4Q	4R	48	4T	4 <b>V</b>			
	26	25	26	22	24	35	31	32	28	16	12			
	22	23	22	11	10	7	4	2	1	0	0			
%	85	92	85	50	42	20	13	6	4	0	0			
1958	4K	4L	4M	4N	4P	40	4Q	4R	48	4T	4 <b>V</b>	4Z	4X	
	28	36	19	25	16	30	26	26	28	26	26	13	27	
	25	33	15	14	9	8	3	5	4	1	1	0	1	
%	89	92	79	56	56	27	12	19	14	4	4	0	4	
1959	4K	4L	4M	4N	4P	40	4ତ୍	4R	4R <sub>1</sub>	4S	4 <b>T</b>	4V	4X	4D
	29	15	27	28	24	29	31	28	12	19	33	28	12	14
	26	14	26	19	13	6	8	9	2	3	1	0	0	4
%	90	93	96	68	54	21	26	32	17	16	3	0	0	. 29
1960	4A	4B	4C		4D	4D <sub>1</sub>	4D <sub>2</sub>		4E	4F	4G	4H	48	4T
_,	28	15	26		25	29	19		33	30	29	28	20	17
	23	15	21		13	17	8		16	0	0	0	0	0
%	82	100	81		52	59	42		49	0	0	0	0	0
1961	4A	4B	4C		4D	4E		4F	4G	4H			48	
·	28	33	28		33	27		29	29	31			18	
	20	26	21		12	8		4	2	3			0	
%	71	79	75		36	30		14	7	10			0	
1962	4A	4B	4C		4D	4E	4F		4G	4H	4K		4s	-
	30	<b>3</b> 0	31		27	28	28		22	27	28		12	
	23	25	24		11	18	12		4	1	4		0	
%	77	83	77		41	64	43		17	4	15		0	
1963	4S		4T	4W	4 <u>L</u>	······································	4N	4D	4E		4A			
	29		30	27	30		31	30	24		8			
	29		13	18	24		5	7	4		0			
%	100		43	67	80		16	23	17		0			
1964	4T	4H	4W	·	40	4D	4N		48	4L	4A			
-,	29	29	30		29	27	29		24	27	23			
	29	24	25		21	17	20		3	4	2			
%	100	83	83		72	63	69		13	15	9			
1965	4T	<del></del>	4H	4E		4W	48	4D	4 <u>L</u>		4A		4N	40
	32		28	30		25	27	28	27		19		27	24
	31		27	28		16	20	16	20		14		0	0

Table 57	Pupils completing the fifth y	ear

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	11	13	8	8	7	7	6	12	10	18	17	117
2	8	9	5	10	14	10	7	4	3	12	18	100
3	13	10	11	5	12	10	13	14	16	12	23	139
4	7	10	6	11	10	14	7	13	6	11	5	100
5	5	13	13	11	12	7	8	13	11	9	16	118
6	11	8	6	12	10	9	9	7	6	11	18	107
7	13	5	10	10	15	8	7	12	10	10	9	109
8	7	12	10	12	12	12	6	11	6	10	18	116
9	9	2	7	11	12	8	11	13	10	16	16	115
10	9	6	9	9	10	10	6	8	7	9	10	93
11	8	10	5	12	8	8	5	8	6	13	9	92
12	3	6	12	8	9	10	11	7	9	14	13	102
-	104	104	102	119	131	113	96	122	100	145	172	1308

Tabl	.e <u>58</u>		<u>Pu</u>	pils n	ot com	pletin	g the	fifth	year			
Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	15	18	14	30	20	17	12	12	8	4	11	161
2	15	9	14	9	18	14	14	9	7	7	12	128
3	22	17	19	23	23	12	12	16	10	9	6	169
4	12	12	21	19	13	15	9	9	8	11	6	135
5	20	17	18	19	11	19	10	7	13	9	9	152
6	14	12	14	15	14	12	9	11	8	12	12	133
7	15	19	6	10	19	16	19	12	8	7	7	138
8	17	12	15	20	11	21	21	<b>1</b> 5	8	9	4	153
9	6	17	14	18	19	9	17	16	11	7	8	142
10	9	13	17	16	13	12	12	8	9	8	7	124
11	16	10	14	17	14	15	10	12	11	6	8	133
12	18	14	9	11	23	24	15	14	8	13	5	154
	179	170	175	207	198	186	160	141	109	102	95	1722

Table 59	Pupils	gaining one	pass at	'O' level
<u> </u>	- 40		Pass as	0 10101

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	3	0	2	1	2	1	1	3	3	6	2	24
2	1	2	2	1	3	2	1	1	2	1	1	17
3	4	1	1	0	0	0	3	6	3	1	5	24
4	2	2	0	1	1	3	. 2	3	0	0	0	14
5	1	2	0	2	3	1	1	4	0	0	4	18
6	1	0	0	2	4	0	3	0	0	3	3	16
7	3	1	4	1	5	2	0	1	2	ı	0	20
8	0	2	1	ı	ı	5	2	1	0	4	3	20
9	1	0	ı	3	2	3	· ı	0	1	4	4	20
10	ı	ı	ı	1	2	4	ı	ı	3	3	3	21
11	0	1	0	ı	0	ı	0	0	1	0	3	7
12	0	0	ı	2	4	0	2	2	1	5	3	20
	17	12	13	16	27	22	17	22	16	28	31	221

Tabl	e 60		Pup	ils ga	ining	two pa	sses a	t '0'	level			
Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	2	4	0	0	0	0	1	1	3	1	5	17
2	0	0	0	0	0	0	1	0	0	1	1	3
3	2	2	0	0	1	1	. 2	2	1	2	1	14
4	0	3	1	4	2	1	0	0	0	0	2	13
5	0	2	0	1	1	0	1	0	2	2	4	13
6	2	1	0	2	0	0	1	ı	0	0	3	10
7	0	0	2	0	2	0	1	2	2	2	2	13
8	0	2	3	0	1	0	0	1	1	1	3	12
9	0	1	0	1	0	0	3	3	1	0	3	12
10	2	2	1	2	2	2	0	3	0	1	0	15
11	0	2	0	2	2	0	1	1	0	5	2	15
12	0	1	0	2	1	1	1	2	2	1	0	11
	8	20	7	14	12	5	12	16	12	16	26	148

Tabl	<u>e 61</u>		Pupil	s gain	ing th	ree pa	ss <b>es</b> a	t '0'	level			
Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	1	3	1	1	0	1	0	1	1	2	0	11
2	1	2	0	1	0	0	1	0	0	2	1	8
3	ı	2	2	0	0	2	0	2	2	0	3	14
4	1	0	0	ı	1	2	3	2	1	1	1	13
5	2	2	1	3	2	0	0	2	2	2	2	18
6	1	1	1	2	1	4	0	1	0	1	1	13
7	ı	2	ı	0	1	1	ı	0	1	3	. 1	12
8	0	0	0	1	0	1	1	1	0	1	1	6
9	1	0	0	1	2	0	ı	2	0	3	ı	11
10	1	1	1	1	3	ı	0	0	1	2	ı	12
11	ı	ı	1	1	1	0	2	0	0	2	ı	10
12	2	2	0	1	0	0	3	0	1	2	2	13

Tabl	e 62		Pupi	ls gai	ning f	our pa	sses a	t '0'	level			
Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	1	2	0	3	1	3	1	3	0	0	2	16
2	0	2	1	2	0	1	1	0	0	0	2	9
3	1	1	1	0	0	1	0	0	0	0	1	5
4	2	0	0	0	1	1	0	2	ı	1	0	8
5	1	1	1	1	0	1	0	3	1	3	1	13
6	0	2	0	0	2	0	0	3	0	1	1	9
7	1	0	0	0	0	0	3	0	0	1	1	6
8	2	0	0	0	0	1	0	0	0	1	2	6
9	2	0	ı	2	0	1	1	2	3	1	3	16
10	1	0	0	1	1	0	3	1	0	0	ı	8
11	1	1	2	1	0	2	0	3	1	0	0	11
12	0	0	ı	1	0	4	1	0	0	2	1	10
	12	9	7	11	5	15	10	17	6	10	15	117

Table 63	Pupils	gaining	five	passes	or	more at	101	level
		_0~		Post	-		•	

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	1	2	3	0	0	1	1	2	2	4	4	20
2	4	2	0	2	2	2	1	1	0	3	7	24
3	2	4	2	1	3	3	0	1	4	5	7	32
4	0	1	3	0	ı	0	0	1	2	4	0	12
5	0	3,	3	1	2	1	0	1	4	1	4	20
6	2	1	3	0	ı	1	2	0	2	3	5 ·	20
7	5	1	0	1	4	0	1	1	3	0	2	18
8	3	4	1	0	1	2	0	2	1	1	3	18
9	3	1	3	2	2	2	3	3	3	4	2	28
10	1	2	5	0	1	0	0	1	2	3	2	17
11	3	5	ı	4	2	2	ı	1	3	3	2	27
12	0	2	4	0	0	ı	0	2	2	2	1	14
	24	28	28	11	19	15	9	16	28	33	39	250

Table 64 Pupils staying for five years who gained no passes at 'O' level including those not entered

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	3	2	2	3	4	1	2	2	1.	5	4	29
2	2	1	2	4	9	5	2	2	1	5	6	39
3	3	0	5	4	8	3	8	3	6	4	6	50
4	2	4	2	5	4	7	2	5	2	5	2	40
5	ı	3	8	3	4	4	6	3	2	1	ı	36
6	5.	3	2	6	2	4	3	2	4	3	5	39
7	3	1	3	8	3	5	1	8	2	3	3	40
8	2	4	5	10	9	3	3	6	4	2	6	54
9	2	0	2	2	6	2	2	3	2	4	3	28
10	3	0	1	4	1	3	2	2	1	0	3	20
11	3	0	ı	3	3	3	ı	3	1	3	1	22
12	ı	1	6	2	4	4	. 4	1	3	2	6	34
	30	19	39	54	57	44	36	40	29	37	46	431

Table 65	Pupils	gaining	no	passes	at	101	level	(only	those	entered)	

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	3	2	1	3	2	0	1	0	0	4	1	17
2	1	1	0	1	6	2	ı	0	1	3	5	21
3	3	0	1	1	4	2	2	1	3	2	3	22
4	2	3	2	1	2	4	1	1	1	1	0	18
5	1	1	3	0	1	1	3	0	1	1	0	12
6	5	3	1	1	1	1	1	0	1	2	2	18
7	3	0	1	5	0	4	0	5	1	2	0	21
8	1	2	1	6	3	1	0	1	1	1	2	19
9	1	0	2	0	3	1	2	0	1	1	2	13
10	3	0	0	2	0	1	1	0	0	0	0	7
11	2	0	ı	0	2	1	0	1	0	1	1	9
12	1	0	3	0	3	2	2	0	2	1	2	16
	26	12	16	20	27	20	14	9	12	19	18	193

Table 66 Pupils gaining no passes at 'O' level, including those who did not complete the fifth year

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	18	20	16	33	24	18	14	14	9	9	15	190
2	17	10	16	13	27	19	16	11	8	12	18	167
3	25	17	24	27	31	15	20	19	16	13	12	219
4	14	16	23	24	17	22	11	14	10	16	8	175
5	21	20	26	22	15	23	16	10	15	10	10	188
6	19	15	16	21	16	16	12	13	12	15	17	172
7	18	20	9	18	22	21	20	20	10	10	10	178
8	19	16	20	30	20	24	24	21	12	11	10	207
9	8	17	16	20	25	11	19	19	13	11	11	170
10	12	13	18	20	14	15	14	10	10	8	10	144
11	19	10	15	20	17	18	11	15	12	9	9	155
12	19	15	15	13	27	28	19	15	11	15	11	188
	209	189	214	261	255	230	196	181	138	139	141	2153

Table 67 The pupils who were placed in the top stream at the commencement of Year 1

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	4	4	1	4	2	0	2	0	2			19
2	3	4	1	3	1	2	0	0	1			15
3	1	3	3	0	4	2	2	0	3			18
4	4	2	3	5	3	2	2	0	3			24
5	2	3	2	1	2	0	2	0	4			16
6	2	3	2	1	3	1	3	0	1			16
7	6	1	2	3	3	2	7	0	1			25
8	2	2	2	6	0	3	2	0	1			18
9	4	0	1	2	2	1	3	0	4			17
10	3	1	3	2	2	7	ı	0	4			23
11	2	2	5	·ı	3	4	2	0	3			22
12	1	3	3	1	2	3	2	0	2			17
	34	28	28	29	27	27	28		29			230

Table 68 The pupils who were placed in the bottom stream at the commencement of Year 1

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	0	2	1	1	0	2	2	0	2			10
2	4	0	1	0	0	0	1	ı	1	2		10
3	2	3	2	2	1	1	1	2	2	3		19
4	2	ı	2	2	ı	4	0	1	1	0		14
5	4	3	2	2	0	2	0	ı	0	0		14
6	2	0	1	ı	4	0	2	0	1	3		14
7	2	0	2	0	0	2	0	2	1	0		9
8	5	1	1	2	1	2	0	1	0	1		14
9	ı	1	0	ı	0	0	ı	ı	0	0		5
10	1	0	3	1	ı	ı	0	ı	0	1		9
11	2	3	ı	0	2	2	0	0	0	2		12
12	2	1	2	0	2	1	0	1	1	2		12
	27	15	18	12	12	17	7	11	9	14		142

Table 69 The pupils who were placed in the top stream at the commencement of Year 3

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	4	2	5	2	1	3	1		2			20
2	3	3	1	0	3	0	1		1			12
3	1	5	2	0	3	4	2		3			20
4	2	3	6	3	0	2	2		3			21
5	4	4	2	3	2	0	2		4			21
6	2	3	3	2	3	2	2		ı			18
7	4	1	0	3	5	2	4		1			20
8	4	ı	2	0	1	ı	0		1			10
9	4	0	1	3	3	2	5		4			22
10	2	0	1	2	4	4	3		4			20
11	ı	5	2	7	3	5	4		3			30
12	1	3	0	3	1	3	2		2			15
	32	30	25	28	29	28	28		29			229

Table 70 The pupils who were placed in the bottom stream at the commencement of Year 3

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	0	4	1	0	0	2	2	0	1	0	3	13
2	1	0	ı	0	0	0	2	0	1	2	3	10
3	3	3	2	3	2	1	ı	2	2	3	2	24
4	3	1	2	2	2	3	0	2	1	1	0	17
5	4	3	2	2	0	3	0	1	0	0	2	17
6	4	0	0	ı	3	0	4	0	1	3	2	18
7	4	0	2	0	1	3	ı	3	1	0	2	17
8	4	1	0	2	2	2	3	2	0	1	3	20
9	1	2	0	2	1	0	2	1	0	0	0	9
10	0	0	3	ı	2	1	ı	0	0	1	3	12
11	2	4	1	0	2	1	0	1	0	2	1	14
12	2	0	2	0	4	1	1	0	1	1	2	14
	28	18	16	13	19	17	17	12	8	14	23	185

Table 71 Selective pupils entered for '0' level examinations and gaining no passes

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	1	1	1	2	0	0	1	0	0	0	0	6
2	1	0	0	0	3	0	0	0	1	0	2	7
3	. 2	0	1	1	3	1	ı	0	1	0	0	10
4	1	ı	2	0	0	3	0	0	1	0	0	8
5	1	1	2	0	1	0	1	0	1	1	0	8
6	2	2	1	ı	1	0	1	0	0	0	0	8
7	1	0	0	3	0	ı	0	2	0	2	0	9
8	1	1	1	3	2	0	0	0	0	ı	1	10
9	0	0	2	0	2	0	1	0	ı	ı	0	7
10	1	0	0	ı	0	ı	0	0	0	0	0	3
11	1	0	1	0	2	ı	0	0	0	1	0	. 6
12	0	0	1	0	2	1	2	0	0	1	0	7
	12	6	12	11	16	8	7	2	5	7	3	89

Table 72 Selective pupils entered for '0' level examinations and gaining one, two or three passes

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	5	3	2	2	1	2	1	2	3	3	3	27
2	ı	2	0	2	ı	2	3	_ 1	1	3	1	17
3	4	3	2	0	1	3	5	5	2	2	2	29
4	3	2	1	6	4	3	4	1	0	0	1	25
5	3	4	0	. 6	4	1	. 2	2	2	2	5	31
6	3	2	ı	5	3	2	1	2	0	3	2	24
7	4	2	5	1	1	0	2	3	2	1	<b>a</b> .	2 <b>2</b>
8	0	2	4	1	ı	3	2	2	1	4	2	22
9	2	0	0	3	2	ı	4	3	1	3	5	24
10	2	0	3	4	6	7	1	. 3	4	2	0	32
11	1	2	1	3	3	1	. 3	1	0	2	4	21
12	1	2	0	4	3	1	4	4	2	2	1	24
	29	24	19	37	30	26	32	29	18	27	27	298

Table 73 Selective pupils entered for '0' level examinations and gaining four or more passes

Mth	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
1	2	4	3	3	1	4	1	5	2	4	3	32
2	4	3	1	4	2	0	1	0	0	1	5	21
3	2	4	2	0	3	4	0	1	4	4	7	31
4	2	l	3	0	2	0	0	1	3	5	0	17
5	0	4	3	1	2	ı	0	4	4	4	3	26
6	2	2	3	0	2	1	2	2	1	3	3	21
7	6	1	0	0	4	0	4	1	2	ı	2	21
8	4	4	1	0	1	3	0	2	1	2	4	22
9	5	1	4	4	2	3	4	4	3	4	3	· 37
10	2	1	4	0	2	0	3	2	2	2	3	21
11	4	6	3	5	2	4	0	4	3	2	0	33
12	0	2	4	1	0	4	0	1	2	3	2	19
	33	33	31	18	23	24	15	27	27	35	35	301

Table 7	<u> 74</u>	:	Numbers	s of p	upils :	in ori	ginal	intakes			
Year	sc	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
1955	26	26	29	29	28	33	28	27	30	27	283
1956	28	26	25	30	27	30	35	28	27	28	274
1957	29	25	26	28	30	25	30	28	28	28	277
1958	33	35	31	35	32	33	34	30	30	33	326
1959	32	34	34	34	32	33	34	34	32	30	329
1960	29	32	27	29	30	30	31	29	31	31	299
1961	25	28	25	25	25	24	25	24	27	28	256
1962	27	29	26	25	26	24	22	28	27	29	263
1963	21	23	19	21	21	20	21	20	21	22	209
1964	22	24	25	25	27	27	23	24	25	25	247
1965	28	26	31	26	25	31	25	27	27	21	267
Total	300	308	298	307	303	310	298	299	305	302	3030

Table 75 Numbers of pupils in the original intakes having V.R.Q.'s over 115

Year	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
1955	12	9	13	. 9	11	9	6	8	9	12	98
1956	10	11	8	12	10	11	9	9	10	10	100
1957	11	8	8	6	10	11	11	6	10	9	90
1958	10	8	7	10	8	10	6	8	6	9	82
1959	5	8	7	6	7	7	8	8	5	6	67
1960	9	8	5	7	7	6	9	8	7	. 8	74
1961	5	9	8	7	6	4	6	7	7	6	65
1962	6	5	4	6	6	4	7	10	6	6	60
1963	6	4	2	2	3	4	4	6	1	5	37
1964	7	4	6	5	4	5	3	9	4	3	50
1965	4	5	6	5	5	4	3	5	4	6	47
Total	85	79	74	75	77	75	72	84	69	80	770

Table 76	Numbers of pupils in the original intakes having V.R.Q.'s in
	the range 100-115

Year	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
1955	8	11	7	6	. 12	17	16	12	10	7	106
1956	13	4	11	13	5	10	10	11	9	9	95
1957	13	9	10	12	9	8	7	12	9	9	98
1958	9	13	11	7	10	9	13	9	11	7	99
1959	12	11	13	15	10	15	13	12	15	9	125
1960	7	8	9	8	10	8	8	6	7	9	80
1961	11	8	6	7	9	9	11	8	10	10	89
1962	13	13	12	9	13	15	9	9	13	11	117
1963	8	13	10	9	12	12	10	6	13	7	100
1964	8	11	15	12	13	14	11	9	12	12	117
1965	14	12	16	13	10	15	13	13	11	7	124
Total	116	113	120	111	113	132	121	107	120	97	1150

Table 77 Numbers of pupils in the original intakes having V.R.Q.'s in the range 85-99

Year	SC	Gi	Pe	Ma	St	El	Cr	Mc	$\mathtt{Sp}$	Bk	Total
1955	5	4	7	10	4	6	5	6	9	8	64
1956	5	11	5	3	9	8	4	8	5	6	64
1957	2	7	6	9	8	5	11	7	6	8	69
1958	10	10	12	15	13	9	12	12	11	14	118
1959	14	11	11	10	14	8	10	11	9	12	110
1960	8	12	9	10	9	12	9	11	12	10	102
1961	8	9	9	10	7	7	8	6	8	9	81
1962	8	8	9	9	5	3	4	5	6	9	66
1963	5	5	7	6	5	2	5	, 2	4	9	50
1964	6	6	3	6	6	4	6	5	6	8	56
1965	8	6	4	5	7	10	8	5	6	5	64
Total	79	89	82	93	87	74	82	78	82	98	844

Table 78 Numbers of pupils in the original intakes having V.R.Q.'s below 85

Year	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
1955	1	2	2	4	1	1	1	1	2	0	15
1956	0	0	1	2	3	1	2	0	3	3	15
1957	3	ı	2	ı	3	1	1	3	3	2	20
1958	4	4	1	3	1	5	3	1	2	3	27
1959	1	4	3	3	1	3	3	3	3	3	27
1960	5	4	4	4	4	4	5	4	5	4	43
1961	1	2	2	1	3	4	0	3	2	3	21
1962	0	3	1	1	2	2	2	4	2	3	20
1963	2	1	0	4	1	2	2	6	3	ı	22
1964	1	3	1	2	4	4	3	1	3	2	24
1965	2	3	5	3	3	2	1	4	6	3	32
Total	20	27	22	28	26	29	23	30	34	27	266

Table 79	Numbers o	of	selective	pupils i	n the	original	intakes
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Year	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
1955	12	9	13	9	11	9	6	7	9	12	97
1956	9	9	7	11	8	10	8	9	8	7	86
1957	9	8	8	8	9	10	11	7	9	8	87
1958	9	9	8	9	6	10	7	7	8	8	81
1959	8	11	8	9	8	10	9	9	8	8	88
1960	8	9	6	8	8	7	8	6	8	8	76
1961	9	10	9	7	9	7	9	9	. 8	9	86
1962	8	9	6	8	9	8	9	9	9	9	84
1963	8	10	6	8	8	5	7	6	9	8	75
1964	7	7	13	8	9	11	2	13	6	5	81
1965	7	9	9	8	8	5	7	6	8	8	75
Total	94	100	93	93	93	92	83	88	90	90	916

Table 8	80 Numbe	rs of	pupils	completing	the	five-	year	course

Year	sc	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
1955	14	7	14	8	13	9	9	10	8	12	104
1956	8	8	10	13	10	12	11	13	8	11	104
1957	9	9	12	10	12	10	12	8	11	9	102
1958	14	13	13	13	16	14	7	10	9	10	119
1959	15	17	11	10	14	15	16	10	14	9	131
1960	13	13	13	9	11	9	11	12	13	9	113
1961	13	10	10	7	10	9	11	7	10	9	96
1962	13	13	11	11	13	11	9	13	16	12	122
1963	11	10	8	8	9	9	14	10	11	10	100
1964	16	16	18	15	11	13	10	15	14	17	145
1965	20	12	22	20	16	17	18	15	17	15	172
Total	146	128	142	124	135	128	128	123	131	123	1308

Table 81 Numbers of pupils completing the five-year course, having V.R.Q.'s in various ranges

The per	riod	1955-61
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Range	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
Over 115	47	45	45	39	47	46	46	37	42	47	441
100-115	26	27	30	26	31	25	25	29	26	18	263
Below 100	13	5	8	5	8	7	6	4	5	4	65
Total	86	77	83	70	86	78	77	70	73	69	769

# The period 1962-65

Range	sc	Gi	Pe	Ma	St	El	Cr	Мс	- Sp	Bk	Total
Over 115	22	12	14	12	14	11	11	27	13	16	152
100-115	28	31	39	36	29	32	28	22	33	28	306
Below 100	10	8	6	6	6	7	12	4	12	10	81
Total	60	5 <b>1</b>	59	54	49	50	51	53	58	54	539

Table 82	Numbers of	selective	pupils	completing	the	five-year	course

Year	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
1955	10	6	10	7	10	6	4	6	7	10	76
1956	6	6	7	7	7	8	7	7	5	5	65
1957	5	7	7	7	8	9	7	5	6	7	68
1958	8	8	6	8	6	9	5	6	7	8	71
1959	8	11	6	5	6	6	9	6	8	6	71
1960	5	7	5	3	6	6	7	5	8	7	59
1961	6	6	7	6	6	4	7	´ 4	6	6	<sub>.</sub> 58
1962	6	5	6	5	8	5	3	9	8	7	62
1963	6	7	4	6	7	2	7	5	6	5	55
1964	7	7	11	7	7	8	ı	11	6	5	70
1965	6	6	8	7	8	5	5	6 .	8	8	67
Total	73	76	77	68	79	68	62	70	75	74	722

Numbers of pupils completing the five-year course and entered for various numbers of '0' level subjects (1955-61)

Subjects	SC	Gi	Pe	Ma	St	E1	Cr	Мс	Sp	Bk	Total
12 only	1		1	1			1			1	5
11		1		1	1						3
10	1	4	2	2	2	2	ı	2	1	3	20
9	2	6	8	2	4	6	6	3	5	5	47
8	7	6	4	3	11	8	10	1	10	7	67
7	9	5	5	5	6	10	6	5	10	13	74
6	6	3	6	5	8	5	7	11	9	8	68
5	6	6	5	12	5	7	5	5	6	4	61
4	4	6	5	3	7	4	7	10	7	3	56
3	5	9	9	4	5	6	7	4	3	10	62
2	10	7	13	4	11	9	3	7	3	5	72
ı	12	7	10	13	14	6	9	8	3	8	90
0	24	17	15	15	12	14	15	14	16	. 2	144
Totals	87	77	83	70	86	77	77	70	73	69	769

Table 84 Numbers of pupils completing the five-year course and entered for various numbers of '0' level subjects (1962-65)

Subjects	SC	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
9 only	4	2	3	0	1	2	1	1	4	2	20
8	3	3	6	3	7	2	3	6	4	7	44
7	5	5	2	6	7	7	4	8	3	7	54
6	3	6	5	6	10	6	2	4	7	2	51
5	9	7	9	9	5	2	3	4	7	5	60
4	5	5	12	5	4	2	6	8	7	ı	55
3	6	2	6	3	3	6	4	5	7	7	49
2	6	3	5	6	3	4	6	8	1	2	44
1	10	4	5	6	4	6	5	5	12	11	68
0	8	14	6	10	5	14	17	4	6	10	94
Totals	59	51	59	54	49	51	51	53	58	54	539

Table 85 Total number of subject entries at '0' level

Year	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
1955	71	37	64	45	54	33	41	36	50	75	506
1956	46	45	67	60	56	67	64	46	35	59	545
1957	30	38	42	36	56	54	43	33	47	39	418
1958	26	65	28	35	72	63	26	41	36	64	456
1959	56	57	32	35	56	48	70	33	56	43	486
1960	37	42	45	19	28	39	<b>5</b> 5	43	67	27	402
1961	21	24	37	25	27	28	30	23	44	55	314
1962	42	38	45	36	59	20	19	59	54	49	421
1963	47	34	35	31	46	28	34	40	39	29	363
1964	57	60	73	46	54	44	27	78	64	53	556
1965	72	52	92	81	75	77	61	48	72	69	699
Total	505	492	560	449	583	501	470	480	564	562	5166

Table 86 Numbers of pupils completing the five year course and gaining various numbers of '0' level subjects (1955-61)

Subjects	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
5 or more	13	12	13	11	17	13	13	8	13	21	134
4 only	11	6	2	4	5	10	8	4	10	9	69
3 only	4	11	8	9	9	8	10	8	12	6	85
2 only	7	6	7	3	8	10	8	13	7	9	78
l only	9	11	16	14	18	9	12	15	7	13	124
O (entered)	18	14	22	14	17	14	11	8	8	9	135
0 (not entered	25 )	17	15	15	12	13	15	14	16	2	144
Total	87	77	83	70	86	77	77	70	73	69	769

Numbers of pupils completing the five-year course and gaining various numbers of '0' level subjects (1962-65)

Subjects	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
5 or more	13	11	8	9	14	11	7	15	15	13	116
4 only	4	6	6	9	6	2	4	4	4	4	49
3 only	3	8	9	4	5	5	3	5	8	5	55
2 only	7	3	11	9	8	7	9	4	9	3	70
1 only	16	5	12	9	10	8	5	13	9	10	97
O (entered)	8 (	4	7	4	1	4	6	8	7	9	58
0 (not entered)	8	14	6	10	5	14	17	4	6	10	94
Total	59	51	59	54	49	51	51	53	58	54	539

Table (	88	To	tal nu	mber o	f '0'	level	subjec	t pass	es_		
Year	sc	Gi	Pe	Ma	St	El	Cr	Мс	Sp	Bk	Total
1955	43	16	36	21	31	13	16	20	28	47	271
1956	31	24	45	40	39	36	41	23	17	33	329
1957	21	24	14	25	25	40	31	15	22	27	244
1958	· 6	31	7	13	28	28	9	18	17	41	198
1959	24	21	15	11	30	20	28	14	24	21	208
1960	22	31	13	11	12	18	33	27	41	12	220
1961	10	9	23	10	17	12	17	9	24	38	169
1962	23	27	23	24	34	12	12	32	39	28	254
1963	36	27	27	24	34	21	27	27	26	14	263
1964	28	44	36	29	34	29	13	56	43	41	353
1965	55	32	49	45	44	44	43	30	51	49	442
Total	299	286	288	253	328	273	270	271	332	351	2951

Table 89 Numbers of pupils completing the five year course and gaining various numbers of C.S.E. subjects (1958-61)

Subjects	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
5 or more	11	5	7	9	10	6	12	6	5	8	79
4 only	5	13	6	2	8	8	3	5	2	2	54
3 only	10	5	8	11	2	6	8	9	8	<sup>77</sup> 5	72
2 only	7	5	9	6	9	7	5	, 6	2	3	59
l only	8	6	4	6	7	3	6	2	12	6	60
O(entered)	2	2	2	0	3	1	2	1	0	2	15
Total	43	36	36	34	39	31	36	29	29	26	339

Table 90 Numbers of pupils completing the five year course and gaining various numbers of C.S.E. subjects (1962-65)

Subjects	SC	Gi	Pe	Ma	St	El	Cr	Mc	Sp	Bk	Total
5 or more	24	19	20	21	12	20	23	18	18	22	197
4 only	9	5	10	10	5	6	8	11	5	5	74
3 only	9	13	10	9	10	4	7	5	12	6	85
2 only	6	6	9	7	9	7	4	8	11	8	75
l only	8	6	5	6	<b>1</b> 2	11	8	10	6	11	83
O(entered)	0	0	1	ı	0	0	0	0	2	0	4
Total	56	49	55	54	48	48	50	52	54	52	518

# APPENDIX II

REPORT ON MORAY HOUSE TEST RESULTS

#### REPORT ON MORAY HOUSE TEST RESULTS

In 1962 the attention of the Director of Education for Coventry was drawn to the fact of an apparent decline in the ability of the selective pupils entering comprehensive schools, arising from a comparison of their V.R.Q.'s with those of the intakes in preceding years. On investigation, the decline in individual schools was found to be reflected in the city as a whole. As a consequence, correspondence was entered into with the University of Edinburgh Department of Education, by whom the Moray House Tests were designed, and a thorough investigation of the results obtained by Coventry children in the years 1955 to 1962, inclusive, was carried out. The conclusions were re-assuring in the sense that the opinion expressed was that the results obtained by Coventry children in successive years were fairly consistent and that the decline in apparent ability arose from attempts to compare in absolute terms the V.R.Q.'s obtained in different years when, in fact, the only relevant factor was the order of merit for the individual group being tested.

Nevertheless, there appeared to be more involved in the decline than the explanation offered was capable of explaining, for the downward drift of the mean V.R.Q. in Coventry implied that the child population in the city as a whole was not keeping step with rising standards achieved by the standardisation group. In other words, while Coventry's mean quotients were falling, there was evidence that the average level of test performance had, over the years in question, been rising steadily in the country as a whole. The explanation offered by the Moray House representatives was that Coventry's policy of avoiding an intensive testing programme at the primary stage probably went a long way towards accounting for the phenomena. Put another way, Coventry children were less test-sophisticated than children elsewhere.

When the situation was re-examined in 1968, the following facts emerged.

Year	V.R.Q. at which selective line was drawn	Percentage of selective places	Percentage having V.R.Q. above 114	Mean V.R.Q.	Total Boys
1955	122	24%	38.7%	110	2490
1968	108	29%	18.0%	100	2497

It is to be seen that in 1955 there were approximately twice as many boys in Coventry with V.R.Q.'s above 114 as one would expect, assuming a normal distribution. During the next twelve years there was a progressive decline until by 1968 the Coventry sample agreed with what one would expect to find in the country as a whole. The explanation that Coventry children were not test-conscious in 1955 is not a valid one and does not explain the decline in V.R.Q. scores over the years. If such an explanation were looked for, it would be more likely, if it were not so absurd, that Coventry children were being intensely coached and, as a consequence, scored more highly than the standardising group. What is required is an explanation that will include the decline in mean test-score achievement by Coventry children and at the same time pay heed to the fact that between 1955 and 1968 there were substantially more children in Coventry than elsewhere in the country achieving high V.R.Q. scores, which were reflected in a higher mean V.R.Q. in Coventry than elsewhere.

These facts are indicated in the following Report on the Moray House Test Results for the period 1955-62.

# Summary of Report of the Department of Education, University of Edinburgh, on the Coventry 'Moray House' test results

"As I had suspected, test 'zero error' has had much to do with the observed decrease over the years 1955-62 in the proportions of children obtaining V.R.Q.'s of 120 or over and of 130 or above. These decreases correspond to the fall in mean V.R.Q. over the years indicated.

The 'zero error' of one test relative to another is the difference between the mean quotients of the two tests if both are administered to the same group and the effect of practice eliminated.

The procedure known as test standardisation consists of first administering the test to a group judged to be representative of the country as a whole and then constructing a set of norms, that is, a conversion table, as follows:

The median raw score is made equivalent to a quotient of 100; the 84th percentile raw score to a quotient of 115; the 16th percentile to a quotient of 85; and so on.

As a result, the quotients obtained by entering the conversion table so constructed are normally distributed about a mean of 100 with a standard deviation of 15.

If it were possible to standardise several tests X, Y, ..... on the same group A, there being no practice effect, the conversion tables for the several tests would be equivalent; a quotient of 115 on X, for example, would have the same meaning as one of 115 on Y, since both would represent the performance of children one standard deviation above average in the same group. However, tests constructed in different years must of necessity be standardised on different representative groups, X on A, Y on B, and so on, Numerically identical quotients would still be equivalent if the level of performance of A, B ....., were the same. In practice, even within one year it is difficult to obtain different groups of the same performance level; over a period of years it turns out to be impossible. For a variety of reasons, the average level of test performance has risen steadily in the last dozen years over the country as a whole. One of the main reasons for this improvement is almost certainly increased test sophistication; others may be a rise in general living standards, better nutrition and the like, possibly earlier maturation, and (I hope) better teaching in schools.

Whatever the reasons, one outcome is that the same group of children will probably obtain a mean quotient on a recent test standardisation on a recent sample several points <u>lower</u> than it would have done on an earlier test standardised on an earlier sample. The difference is what I have termed 'mean zero error'.

We now apply these considerations to the Coventry results. We set up the hypothesis that average performance has been maintained at approximately the same level in Coventry over the years 1955-62. If this hypothesis is correct, we should expect the measured mean performance level to fall steadily in relation to the increasing 'mean zero error' of the test used; and this is exactly what we do find.

The table below presents the 'mean zero error' of the tests used in Coventry over the period; the corresponding mean quotients; and the percentages of children with quotients at or above 120 and 130 respectively.

	Year	1955	1956	1957	1958	1959	1960	1961	1962
1.	Mean Zero Error	2.84	4.52	5 <b>.</b> 87	6.42	5.91	6.31	8.04	9.41
2.	Mean Quotient	110.5	108.0	107.5	106.0	105.0	105.0	104.5	104.0
3.	% 120 plus	28.7	23.8	21.9	20.2	17.5	19.4	17.7	16.6
4.	% 130 plus	11.8	8.7	7.9	7.0	5•3	7.0	6.3	4.3

On plotting the figures in lines 2, 3 and 4 respectively against those in line 1, a reasonable approximation to a straight line is obtained in each of the three cases, with the exception, in all cases, of the points for the years 1959 and 1960. Significantly enough, we have prior reason to believe that our estimates of the zero errors of the tests used in these years are of doubtful validity.

A further way of handling the data is to 'correct' the Coventry mean quotients over the years by adding to them the appropriate zero errors. Thus for 1955 we add 2.84 to 110.5 and obtain 113.34. The complete results are tabulated below:

Year	1955	1956	1957	1958	1959	1960	1961	1962
Corrected mean quotients	113.3	112.5	113.4	112.4	110.9	111.3	112.5	113.4

These figures show clearly that the level of performance in Coventry is reasonably consistent over the period; the apparent decline has disappeared. The two relatively low means, for 1959 and 1960, again correspond to the tests for which our 'zero error' estimate is suspect.

These results focus attention on the need for careful interpretation of the measures we term test quotients. It is clearly indefensible to accept them as measurements in any absolute sense having precisely the same meaning from one test to another. Although the level at which test measure is thus seen to change from one test to another, the <u>order</u> in which different tests in the series place members of the same group of children is fairly constant. This is indicated by the consistently high correlation coefficients between scores on different tests."

# APPENDIX III

RESPONSIBILITIES OF HOUSEMASTERS

#### DUTIES OF HOUSEMASTERS

#### Document No. 1.

#### 1. General supervision of House block and approaches

The block includes Housemaster's room, staff room, staff toilet, study, boys' toilet, study and dining-classroom.

#### 2. General supervision of members of House

reported to the Headmaster.

In particular, the Housemaster is responsible for:

Prayers in House room.

Milk distribution to his house.

Supervising the midday meal.

Records of house members; in particular, record sheets and report books.

Careers, which involves liaison with subject masters, parents and the Youth Employment Service.

House teams for games.

Discipline. Only very serious breaches should be

#### 3. Parents

The Housemaster has authority to deal with all ordinary school matters.

#### 4. Teaching

The Housemaster's Responsibility Allowance is in respect of extra duties. In other respects, he is a member of the teaching staff carrying a full load of teaching.

#### 5. Housemaster's Committee

There will be a meeting at least once a week to consider common problems. The Headmaster (or Deputy) will preside.

The Housemaster is responsible to the Headmaster (or his Deputy) for the conduct of his House. He will be assisted in his duties by other members of staff allocated to his House, one of whom will probably receive a Responsibility Allowance for duties partly connected with the House.

The Housemaster has no control over the Senior Subject Masters, who are also directly responsible to the Headmaster.

#### DUTIES OF HOUSEMASTERS

#### Document No. 2.

#### 1. PREMISES

#### (a) General Supervision of Premises and Approaches

arranging duty rotas for staff, prefects and housewardens; dealing with litter problems; emergency repairs; care of furniture; stock returns to auditors.

#### (b) Maintenance of Premises

making periodic reports to Headmaster; arranging for repairs by requisition through caretaker; work by staff and/or boys to maintain and improve premises; (e.g. provision of locker keys, locker repairs, decoration and other amenities).

#### 2. ACTIVITIES IN HOUSE

#### (a) Prayers in House Room

organisation of morning assembly and services for special occasions.

#### (b) Milk Distribution

periodic adjustment of order and returns to Ministry; organising supervision, returns of bottles etc.

#### (c) Midday Meal

daily order for meals to kitchen; records of attendances and payments, staff and boys; collection of money and transfer to office; arranging accommodation and supervision (duty rotas); weekly return to office; period return to Ministry.

#### (d) House Clubs and Teams

organisation of House Clubs and provision of materials from House funds, e.g. Chess, Table Tennis, Drama; selecting teams for inter-House competitions, providing equipment and organising training - Soccer, Rugger, Basketball, Cross-country, Hockey, Athletics, Swimming, Cricket, Chess, Table Tennis, Tennis, Drama (House play for festival); encouraging participation in School activities (swimming tests, plays, concerts, etc.)

#### (e) Social Activities

organising Christmas parties, parents' evenings, prizegiving days, etc.;

organising House contribution to School social occasions, e.g. Gala Days, School Plays and concerts (sales of tickets); organising a House charity scheme and collecting contributions.

#### (f) House Period

organising programme for weekly house period; arranging for records to be kept by staff and inspection of these.

#### 3. CARE OF PUPILS

#### (a) Records and Reports

to make half-yearly reports on all pupils and also end of year reports;

to keep records of academic progress, conduct, extra-curricular interests etc. of all pupils;

to record commendations, adverse reports from other masters and make recommendations for re-grading in appropriate cases.

#### (b) Careers advice

to keep abreast of latest careers information and to assist boys when required;

to give detailed reports on all boys to the Careers Advisory Officer before they leave, and to arrange for personal interviews; testimonials for present and former pupils.

#### (c) Discipline

School uniform - regular reports to Headmaster and help with replacements;

Behaviour in school (including dealing with boys reported by other masters);

Appointment of House Prefects, Milk Monitors, Wardens and other House officials and acquainting them with their duties; Recommendations to Headmaster for School Officials; Supervision of after-school activities in House; Instant duty at all breaks and lunch hours.

#### (d) Health and General Welfare

arrangements for first aid; arrangements for visits to hospital or clinic; referring cases to Child Guidance Clinic and supplying reports; supplying reports to Police Courts, Probation Officers; arranging home visits by Welfare Officer; running House Tuck Shop.

#### (e) Relations with Parents

correspondence with parents on questions of attendance, punctuality, conduct, academic progress, career etc., followed by interviews if necessary; attending school parents' evenings for progress reports.

#### 4. GENERAL ADMINISTRATION

## (a) School Fund

collection, disbursement and preparation of annual statement of account; distribution of School Magazine to present and former pupils.

## (b) Registration

keeping register of admissions and leavers; daily registration and weekly attendance return.

#### (c) Supervision of Staff

staff absence returns; work done in House Period; work of students assigned to House.

## (d) Sales

keeping accounts of all sales, e.g. photographs, tickets of various sorts, tuck-shop, etc.

(e) Attending Housemasters' weekly committee meeting.

November, 1965.

# APPENDIX IV

CHANGES IN HOUSEMASTERSHIPS

OVER THE PERIOD 1954-70

# CHANGES IN HOUSEMASTERSHIPS OVER THE PERIOD 1954-70

BROOK HOUSE	W. H. Cleaver	September 1954 to present
CRESSWELL HOUSE	R. C. Hancock R. England T. D. A. Felton G. H. Tickle	September 1954 to July 1961 September 1961 to December 1961 January 1962 to December 1964 January 1964 to present
ELLIS HOUSE (Spencer House prior to July 1964)	E. Ellis D. V. Miles	September 1954 to July 1964 September 1964 to present
GIBSON HOUSE	H. J. Caffelle W. J. Newton	September 1956 to April 1959 April 1959 to present
McLACHLAN HOUSE	J. Burdett H. G. Jones	September 1954 to April 1970 April 1970 to present
MALINS HOUSE	W. E. Lee	September 1954 to present
PERRENS HOUSE  (Wilson House prior to January 1957)	F. W. Perrens L. E. Harris	September 1954 to December 1956  January 1957 to present
SMITH-CLARKE HOUSE	F. R. Aldridge B. D. Tranter	September 1956 to July 1966 September 1966 to present

STRINGER HOUSE

W. H. Edney

September 1954 to present

SPARKES HOUSE

V. W. Long

R. England

January 1970 to present.

# APPENDIX V

# RESPONSIBILITIES OF HEADS OF DEPARTMENTS

#### THE DUTIES OF SENIOR SUBJECT MASTERS

#### Document No. 1.

Senior Subject Masters are responsible for:

- 1. The syllabuses of their subjects; the progress of their pupils and their organisation into sets.
- 2. General supervision of junior masters teaching their subjects. This necessarily includes the teaching duties of Housemasters.
- 3. Checking of examination papers and worked scripts. Keeping sets of last two examination scripts.
- 4. Ordering of books and materials and their subsequent use.
- 5. Where there are premises set aside for a particular subject, the upkeep of the premises and fixtures and the storing of consumable goods.
- 6. Providing the Housemasters with such particulars as they may require in acting as Careers Masters.

September, 1954.

#### THE RESPONSIBILITIES OF HEADS OF DEPARTMENTS

#### Document No. 2.

#### CURRICULUM

The range of subject courses to suit varying levels of ability. Decisions on examination objectives. Non-examination courses at all stages of the school. Integration with other subject studies. Representations to H.M. on time allocations and distribution. Encouragement of clubs, societies, projects, field days, works visits, etc.

#### SUPERVISION OF STAFF

The training of probationary teachers, including arrangements for advisory visits by self, or by senior colleagues, to their lessons, and also for regular visits by probationers to lessons taken by experienced colleagues. Special advisory relation with any teacher on extended probation. The organisation of work of full-time teachers shared with other departments, and also of part-time teachers.

The organisation and supervision of teaching practice within the department and liaison with college tutors.

General assessment of the work of members of the departmental staff.

#### ORGANISATION OF DEPARTMENT

Delegation of specific responsibilities. Arrangements for formal, and informal, departmental meetings.

Co-ordination of teaching methods.

Policy on lesson preparation, records of work, marking techniques, homework. Rules controlling discipline of pupils within the department.

#### COMMUNICATIONS

Responsibility for transfer of information from H.M. to departmental staff and vice versa.

Dissemination of information on a wide range of matters to all members of the department. This applies particularly to newly appointed colleagues, and will normally involve the regular issue of notes on organisation, policy, etc., together with particulars of courses, conferences, etc.

Contacts with contributory schools.

Contacts with further education.

Contacts with parents on availability of courses, particularly at the stage when the subject may become optional and again on admission to the sixth form.

#### FINANCE

Consideration of requests from individual members of staff in relation to allocations for equipment, books, etc.

Presentation to H.M. of any case for modification in the accommodation, or financial allocation, for the department.

Recommendations for library acquisitions.

Development, where appropriate, of a departmental library

# APPENDIX VI

SUBJECT ALLOCATIONS FOR THE PERIOD 1955-61

SUBJECT ALLOCATIONS FOR THE PERIOD 1962-70

# YEAR ONE

	1A	1B	10	1D	1E	1F	1G	1H	ıĸ	1Q	1R	18	1T
English	5	5	6	6	6	7	7	7	7	7	7	8	8
Mathematics	5	5	6	6	6	7	7	7	7	7	7	8	8
History	3	3	3	3	3	3	3	3	3	3	3	3	3
Geography	3	3	3	3	3	3	3	3	3	3	3	3	3
French	5	5	5	5	5								
Science	4	4	4	4	4	4	4	4	4	4	4	3	3
R.I.	1	1	2	2	2	2	2	2	2	2	2	2	2
P.E.	2	2	2	2	2	3	3	3	3	3	3	3	3
Games	2	2	2	2	2	2	2	2	2	2	2	2	2
Woodwork	2	2	2	2	2	3	3	3	3	3	3	3	3
Art	2	2	2	2	2	3	3	3	3	3	3	2	2
Music	2	2	2	2	2	2	2	2	2	2	2	2	2
Latin	3	3											
House period	1	ı	1	1	1	1	1	1	1	1	1	1	1
	40	40	40	40	40	40	40	40	40	40	40	40	40

#### YEAR TWO

	2A	2B	2C	2D	2D <sub>1</sub>	2E	2F	2G	2H	2K	2Q	2R	2\$	2T
English	5	5	6	6	6	6	7	7	7	7	7	7	8	8
Mathematics	5	5	6	6	6	6	7	7	7	7	7	7	8	8
History	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Geography	3	3	3	3	3	3	3	3	3	3	3	3	3	3
French	5	5	5	5	5	5								
Science	4	4	4	4	4	4	4	4	4	4	4	4	3	3
R.I.	1	1	2	2	2	2	2	2	2	2	2	2	2	2
P.E.	2	2	2	2	2	2	3	3	3	3	3	3	3	3
Games	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Metalwork	2	2	2	2	2	2	3	3	3	3	3	3	3	3
Art	2	2	2	2	2	2	3	3	3	3	3	3	2	2
Music	2	2	2	•2	2	2	2	2	2	2	2	2	2	2
Latin	3	3												
House period	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	40	40	40	40	40	40	40	40	40	40	40	40	40	40

### YEAR THREE

	3K	3L	3M	3N	3D	3P	30	<b>3</b> Q	3R	<b>3</b> S	3 <b>T</b>	3 <b>V</b>	3X	3Z
English	5	5	5	5	5	5	5	5	6	6	6	8	8	8
Mathematics	5	5	5	5	5	6	6	6	6	6	6	8	8	8
History	3	3	3	3	3	3	3	3	3	3	3	4	4	4
Geography	3	3	3	3	3	3	3	3	3	3	3	4	4	4
French	5	5	5	3	3									
Latin (German )	. 4													
Physics	. 4	4	4											
Chemistry	7	<b>\</b> 4												
Biology		} ¯												
Science				4	6	4	4	4	3	3	3			
Mechanics	2	2	2	2										
Technical Drawing			4	4	4	4	4	4	4					
R.I.	1	1	1	2	2	2	2	2	2	2	2	2	2	2
P.E.	1	1	1	2	2	2	2	2	2	3	3	3	3	3
Games	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Building						8			)					
Music									1					
Woodwork	4	4					8	8	8	8	8	4	4	4
Art									(					
Metalwork J			4	4	4				J					
Agricultural Science					,					3	3	4	4	4
House period	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	40	40	40	40	40	40	40	40	40	40	40	40	40	40

# YEAR FOUR

	4K	4 <b>L</b>	4M	4N	4D	4P	40	4Q	4R	4R <sub>l</sub>	48	4 <b>T</b>	4 <b>V</b>	4 <b>Z</b>	4X
English	5	5	5	5	5	5	5	5	6	5	6	6	8	8	8
Mathematics	5	5	5	5	5	6	6	6	6	5	6	6	8	8	8
History	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
Geography	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
French	5	5	5	3	5					3					
Latin (German )	4			-											
Physics	, 4	4	4												
Chemistry	7	<b>\</b> 4													
Biology		} +													
Science				4	6	4	4	4	3	6	3	3			
Mechanics	2	2	2	2											
Technical Drawing			4	4	4	4	4	4	4	4					
R.I.	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
P.E.	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3
Games	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Building						8				)					
Music															
Woodwork	4	4				(	8	8	8		8 (	8	4	4	4
Art						(	/								
Metalwork			4	4	4					4)					
Agricultural, Science						J					3	3	4	4	4
House Period	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40

# YEAR FIVE

		5K	5L	5M	5N	5P	5R
English		5	5	5	5	5	6
Mathematics		5	5	5	5	. 6	6
History		3	3	3	3	3	3
Geography		3	3	3	3	3	3
French		5	5	5	3		
Latin German	}	4					
Physics	1	4	4	4			
Chemistry	}	7	<b>\</b> 4				
Biology			}				
Science					4	4	3
Mechanics		2	2	2	2		
Technical Drawing				4	4	4	4
R.I.		1	1	1	2	2	2
P.E.		1	1	1	2	2	2
Games		2	2	2	2	2	2
Building						8	\
Music							
Woodwork		4	4				8
Art							>
Engineering	J			4	4		
Agricultural Science							
House period		1	1	1	1	1	1
	4	0	40	40	40	40	40

# YEAR ONE

	1962	1963	1964	1965	1966	1967	1968	1969	1970	Reme	dial
English	6	5	3	2	2	3	3	3	2 `	)	
Mathematics	6	5	3	3	3	3	3	3	3		
History	3	3	1	1	ı	2	2	2	2	25	12
Geography	3	3	1	1	1	ı	1	1	1		
French	5	5	3	3	3	3	3	3	3		
Science	4	4						2	2	2	1
Physics			1	1	1	ı	ı				
Chemistry			1	1	1	ı	1				
R.I.	2	2	1	1	1	1	1	1	1	2	1
P.E.	2	2	1	1	2	1	1	1	1	2	1
Games	2	2	1	1	1	ı	1	1	1	2	1
Woodwork	2	2	1	1	2	1	1	1		2	1
Craft									1		
Art	2	2	1	1	1	1	1	1	1	2	1
Music	2	2	ı	ı	ı	1	1	1	ı	2	1
Handwriting		1									
Form period		1		1							
Drama				1					ı		
House period	1	1	1				·			1	1
	40	40	20	20	20	20	20	20	20	40	20

<u>YEAR TWO</u> <u>1962-3</u>

	2A	2B	2C	2D	2E	2 <b>F</b>	2G	211	2\$	2T
English	5	5	. 5	5	5	7	7	7	8	8
Mathematics	5	5	5	5	5	7	7	7	8	8
History	3	3	3	3	3	3	3	3	3	3
Geography	3	3	3	3	3	3	3	3	3	3
French	5	5	5	5	5					
German		5								
Latin	5									
Science	4	4	4	4	4	4	4	4	3	3
R.I.	1	1	2	2	2	2	2	2	2	2
P.E.	2	2	2	2	2	3	3	3	3	3
Games	2	2	2	2	2	2	2	2	2	2
Woodwork	2	2	3	3	3	3	3	3	3	3
Art	۷	2	3	3	3	3	3	3	2	2
Music	2	2	2	2	2	2	2	2	2	2
House period	1	1	1	1	1	1	1	1	1	1
	40	40	40	40	40	40	40	40	40	40

YEAR TWO 1963-4

	2 <b>A</b>	2B	2C	2D	2E	2F	2G	2H	2K	2\$
English	5	5	5	5	5	5	7	7	7	8
Mathematics	5	5	5	5	5	5	7	7	7	8
History	3	3	3	3	3	3	3	3	3	3
Geography	3	3	3	3	3	3	3	3	3	3
French	5	5	5	5	5	5				
German		5	5							
Latin	5									
Science	4	4	4	4	4	4	4	4	4	3
R.I.	1	1	ı	2	2	2	2	2	2	2
P.E.	2	2	2	2	2	2	3	3	3	3
Games	2	2	2	2	2	2	2	2	2	2
Woodwork	2	2	2	3	3	3	3	3	3	3
Art	۷	2	۷	3	3	3	3	3	3	2
Music	2	2	2	2	2	2	2	2	2	2
House period	1	1	ı	1	1	1	1	1	1	1
	40	40	40	40	40	40	40	40	40	40

YEAR TWO 1964-5

	2\$	2T	2Н	2W	2L	2N	2D	2E	2 <b>A</b>
English	2	2	2	2	2	2	3	3 `	)
Mathematics	.3	3	3	3	3	3	3	3	
History	1	1	1	ı	1	1	1	1	10
Geography	1	2	2	2	2	2	2	2	
French	3	3	3	3	3	3	2	2	
Physics	1								
Chemistry	1								
Biology	1								
Science		2	2	2	2	2	2	2	1
R.I.	1	1	1	1	1	1	ı	1	1
P.E.	1	1	1	1	1	1	ı	1	1
Games	1	ı	1	ı	1	1	1	1	1
Woodwork	1	1	1	1	1	1	ı	1	2
Art	1	1	1	1	1	1	ı	1	2
Music	1	1 .	1	1	1	1	ı	1	1
House period	1	1	1	1	1	1	1	1	1
	20	20	20	20	20	20	20	20	20

YEAR TWO 1965-6

	2 <b>T</b>	2H	2W	20	2N	2D	28	2 <b>L</b>	2 <b>A</b>
English	2	2	2	2	2	2	3	3 `	\
Mathematics	3	3	3	3	3	3	3	3	
History	2	2	2	2	2	2	2	2	9
Geography	2	2	2	2	2	2	2	2	
French	3	3	3	3	3	3	2	2	2
Physics	ı	1	1	1	1	1	1	1	
Chemistry	1	1	1	1	1	1	1	1	
Biology									
Science									1
R.I.	1	1	ı	1	ı	1	1	1	1
P.E.	1	1	1	1	1	1	1	1	1
Games	1	1	1	1	1	1	ı	1	1
Woodwork	ı	1	1	1	1	1	1	1	2
Art	1	1	ı	ı	ı	1	1	1	2
Music	1	1	1	1	1	1	1.	1	1
House period									
	20	20	20	20	20	20	20	20	20

YEAR TWO 1966-71

# ALL FORMS

	1966-7	1967-8	1968-9	1969-70	1970-71
English	3	3	3	3	3
Mathematics	3	3	3 `	3	3
History	2	1	1	1	1
Geography	2	2	2	2	2
French	2	3	3	3	3
Physics	1	1	1	1	ı
Chemistry	1	1	ı	ı	1
R.I.	1	1	1	ı	1
P.E.	ı	1	1	1	1
Games	1	1	1	1	1
Woodwork	1	1			1
Metalwork			ı	1	
Art	1	1	1	1	1
Music	1	1	1	1	ı
	20	20	20	20	20

# YEAR THREE

# <u> 1962-3</u>

	3A	3B	3C	3D	3D1	3D <sub>2</sub>	3E	3F	3G	3H	3S	3T
English	5	5	5	5	5	5	6	6	6	6	7	7
Mathematics	5	5	5	5	5	5	5	5	5	5	7	7
History	3	3	3	3	3	3	3	3	3	3	3	3
Geography	3	3	3	3	3	3	3	3	3	3	3	3
French	5	5	5	5	5	5						
German	) } 5	5										
Latin												
Physics	3	3	3	3	3	3						
Chemistry	2	2	2	2	2	2						
Biology	2	2	2	2	2	2						
Science							4	4	4	4	3	3
Technical Drawing		,	2	2	2	2	2	2	2	2		
R.I.	1	1	1	1	1	1	2	2	2	2	2	2
P.E.	1	1	1	1	1	1	2	2	2	2	2	2
Games	2	2	2	2	2	2	2	2	2	2	2	2
Music						)						
Art												
Woodwork	2	2	2	2	2	2	3	3	3	3	3	3
Agricultural Science						$\int$						
Building J							4	4	4	4	4	4
Metalwork			3	3	3	3	3	3	3	3	3	3
House period	1	1	1	1	1	1	ı	1	1	1	1	1
	40	40	40	40	40	40	40	40	40	40	40	40

# <u>YEAR THREE</u> <u>1963-4</u>

	3A	3B	3C	3D	3E	3F	3G	3H	3S
English	5	5	5	5	5	6	6	6	7
Mathematics	5	5	5	5	5	5	5	5	7
History	3	3	3	3	3	3	3	3	3
Geography	3	3	3	3	3	3	3	3	3
French	5	5	5	5	5				
German		5							
Latin	5								
Physics	3	3	3	3	3				
Chemistry	2	2	2	2	2				
Biology	2	2	2	2	2				
Science						4	4	4	3
Technical Drawing			2	2	2	2	2	2	
R.I.	1	1	1	1	1	2	2	2	2
P.E.	1	1	1	1	1	2	2	2	2
Games	2	2	2	2	2	2	2	2	2
Music						}			
Art									
Woodwork	2	2	2	2	2	> 3	3	3	3
Agricultural Science									
Building					_	4	4	4	4
Metalwork			3	3	3	3	3	3	3
House period	1	1	1	1	1	1	1	1	1
	40	40	40	40	40	40	40	40	40

# YEAR THREE

# 1964-5

	3A	3B	3C	3D	3E	3F	3G	3H	3K	38
English	2	2	2	2	2	2	2	2	2	1
Mathematics	3	3	3	3	3	3	3	3	3	9
History	1	1	1	1	l	ı	1	1	1	79
Geography	1	1	1	1	1	1	1	1	1	)
French	2	2	2	2	2	2				
German	} 2	2	2							
Latin	) -	۷	۲,							
Physics	1	1	1	1	1	1				
Chemistry	ı	1	1	1	1	1				
Biology	1	1	1	1	1	1				
Science							2	2	2	1
Technical Drawing				1	ı	1	ı	1	1	
R.I.	ı	1	ı	1	1	1	1	1	1	1
P.E.	1	1	1	1	1	1	1	ı	1	1
Games	1	1	1	1	1	1	1	1	1	ı
Music			•	)		1	\			
Art	) ı	1	1	1						
Woodwork	J			> 2	2	2	2	2	2	2
Agricultural Science										
Building			J	1			2	2	2	2
Metalwork	1	1	1	1	1	1	2	2	2	2
House period	1	1	1	1	11	1	1	1	1	1
	20	20	20	20	20	20	20	20	20	20

# <u>YEAR THREE</u> <u>1965-6</u>

	<b>3</b> S	<b>3</b> T	3W	3L	3N	3D	3E	3 <b>A</b>
English	2	2	2	2	2	2	2	3
Mathematics	3	3	3	3	3	3	3	3
History	1	1	1	1	1	1	1	2
Geography	1	1	ı	ı	1	1	1	2
French	3	3	3	3				
Physics	1	ı	1	1	1	1	1	
Chemistry	1	1	1	ı	1	1	1	
Biology	1	1	1	ı	1	1	1	
Science								1
Technical Drawing	1	1	1	1	1	1	1	
R.I.	1	1	1	1	1	1	1	1
P.E.	1	1	1	1	1	ı	1	1
Games	1	1	1.	1	1	1	1	1
Music	)							
Art	} 2	. 2	2	2				
Woodwork	J				2	2	2	2
Agricultural Science								
Building					2	2	2	2
Metalwork	1	. 1	1	1	2	2	2	2
	20	20	20	20	20	20	20	20

# YEAR THREE

	1966	<u>-7</u>	<u> 1967-8</u>		1968	<u>-9</u>	1969-70	<u> 1970-</u>	<u>71</u>
	THWODN	ALS	THEWLDS	ANO	THWODL	ENS	All forms	9 forms	R
English	3	2	3	3	3	2	3	3	}
Mathematics	s 3	3	3	3	3	3	3	3	\ \ 10
History	1	1	1	1	1	1	ı	1	
Geography	1	1	Î.	1	1	1	ı	1	
French or Art and Woodwork	3							,	
French only	7		2		3				
Physics	1	1	1		1	1	1	1	
Chemistry	1	ı	1	1	1		<b>1</b> .	1	
Biology	1	1	1		1		1	1	
Geology							1	1	
Technical Drawing	1	1	1	1	1	1	1	1	
R.I.	ı	l	1	1	l	1	ı	l	1
P.E.	1	l	1	1		1			1
Games	1	ı	1	1	1	1	ı	1	1
Metalwork	1	2	l	2	1	1			2
Music	) `		) 1	1	) 1	l			1
Art		2	} 1	1	}	2	2	2	2
Woodwork	l	}	1	2	1	3	J	J	2
Brickwork		2		1		1			
French or Woodwork and P.E.							3		
French or Commerce, Art & P.E.								3	
	50	20	20	20	20	20	20	20	20

# YEAR FOUR

# 1962**-**3

		4K	4 <b>L</b>	4M	4N	4P	40	4Q	4R	4R <sub>1</sub>	48	4T	4V	4 <b>X</b>	4D
English		5	5	5	5	5	5	5	7	7	6	6	6	6	5
Mathematics		5	5	5	5	6	6	6	7	7	6	6	6	6	5
History		3	3	3	3	3	3	3	3	3	3	3	3	3	3
Geography		3	3	3	3	3	3	3	3	3	3	3	3	3	3
French		5	5	5	3										3
Latin German	}	- 4													
Physics	ļ	4	4	4											
Chemistry	}	,	4												
Biology			}												
Science					4	4	4	4	4	4	3	3	3	3	4
Mechanics		2	2	2	2										2
Technical Drawing				4	4	4	4	4	4	4					4
R.I.		1	1	1	2	2	2	2	2	2	2	2	2	2	2
P.E.		1	1	1	2	2	2	2	3	3	3	3	3	3	2
Games		2	2	2	2	2	2	2	2	2	2	2	2	2	2
Building						8	4	4			4	4	4	4	
Music	)					)									
Woodwork		4	4				4	4	4	4 (	4	4	4	4	4
Art			•								<b>&gt;</b>				
Metalwork	J			4	4					J					
Agricultural Science						J				-	3	3	3	3	
House period		1	1	1	1	1	1	1	1	1	1	1	1	1	1
		40	40	40	40	40	40	40	40	40	40	40	40	40	40

#### YEAR FOUR

# 1963-64

	4A	4B	4C	4D	4D1	4D2	4E	4F	4G	4H	48	4 <b>T</b>
English	5	5	5	5	5	5	5	5	5	5	6	6
Mathematics	5	5	5	5	5	5	5	5	5	5	6	6
French	5	5	5									
R.I.	1	1	1	1	1	1	2	2	2	2	2	2
P.E.	ı	1	1	1	1	1	3	3	3	3	3	3
Games	2	2	2	2	2	2	2	2	2	2	2	2
Physics				5	5	5						
Science							4	4	4	4	3	3
History							3	3	3	3	3	3
Geography							3	3	3	3	3	3
Technical Drawing							4	4	4	4		
Building							4	4	4	4	4	4
Agricultural Science											3	3
House period	1	1	1	1	1	1	1	1	1	1	1	1
	20	20	20	20	20	20	36	36	36	36	36	36

#### Optional for 4A/B/C - 4 periods per subject and one subject from each group

Physics	Physics	Geography	Design Music	History
Latin	Chemistry	History	Building Art	Geography
Biology	Biology	Chemistry	Woodwork Engineering	R.I. Mechanics
	Tec.Drawing	Tec.Drawing	Ag. Science	Commerce

#### Optional for 4D/D1/D2 - 5 periods per subject and one subject from each group

French	Geography	History	Design Building
Geography	Commerce	Commerce	Woodwork Engineering
History	Chemistry R.I.	Tec.Drawing	Ag. Science
Biology	Tec.Drawing		Music

#### YEAR FOUR

# 1964-65

	4 <b>A</b>	4B	4C	4 <b>D</b>	4D <sub>1</sub>	4E	4F	4G	4H		4S
English	3	3	3	3	3	3	2	2	2	English	
Mathematics	3	3	3	3	3	3	2	2	2	4	10
R.I.	1	1	ı	1	1	1	1	1	1	7	10
P.E.	ı	1	1	1	1	ı	ı	1	1	Geography	
Games	1	1	1	1	1	1	1	1	1	·	
Building							2	2	2		
House period	1	1	1	1	1	1	1	1	1		
	10	10	10	10	10	10	10	10	10	•	10

#### Optional for 4A/B/C - 2 periods per subject and one subject from each group

Physics	Physics	Geography	Design Music	History
Latin	Biology	History	Art Woodwork	Geography
German	Tec.Drawing	Chemistry	Engineering	R.I.
Biology	French	French	Geology Pottery	Commerce
		Tec.Drawing		French

#### Optional for 4D/D<sub>1</sub>/E - 2 periods per subject and one subject from each group

French	Geography	Design Building	History	Physics
Geography	R.I.	Woodwork Engineering	Tec.Drawing	French
History	Commerce	Art Music	Physics	Art
Biology	Chemistry	Pottery		Geolog <b>y</b>
	Tec.Drawing			

# Optional for 4F/G/H-2 periods per subject and one subject from each group

Woodwork	Geography	Drama	Woodwork	Geography
Ag. Science	History	Radio	Ag. Science	History
Metalwork	Science	Model making	Metalwork	Science
Art	Tec.Drawing	Navigation	Art	Tec.Drawing
Pottery		Combustion	Music	
Mucic		Engines		

Music

### YEAR FOUR

# 1965-66

	4 <b>A</b>	4B	4C	4D	4E	4 <b>F</b>	4G	4H	4K	4 <b>S</b>
English	3	3	3	3	3	3	1	1	1	1
Mathematics	3	3	3	3	3	3	2	2	2	2
R.I.	1	1	ı	1	ı	1	1	ı	ı	1
P.E.	1	1	1	1	ı	1	1	1	1	1
Games	ı	1	1	1	1	ı	1	ı	ı	1
Technical Drawing							2	2	2	
Agricultural Science										2
Drama/French	1	1	1	1	1	1				
Building							2	2	2	2
	10	10	10	10	10	10	10	10	10	10

# Optional for 4A/B/C - 2 periods per subject and one subject from each group

Physics	Physics	Geography	Music Art	Geography
Latin	Biology	History	Woodwork Engineering	History
German	French	Chemistry	Geology	French
Biology	Tec.Drawing	Tec.Drawing		Commerce

# Optional for 4G/H/K/S - 2 periods per subject and one subject from each group

Woodwork	Drama	Geography	Woodwork	Geography
Agricultural	Navigation		Agricultural	
Science	Cookery	History	Science	History
Art	Model making		Art	
Metalwork	Radio	Science	Metalwork	Science
Music	Car Mainte-		Music	
Design	nance	Commerce	Design	Commerce
Pottery			Pottery	

# Optional for 4D/E/F - 2 periods per subject for 4A/B/C above

# YEAR FOUR

# 1966-67

	4S	4 <b>T</b>	4 <b>W</b>	4L	4N	4D	4E	4 <b>A</b>
English	3	3	3	3	2	2	2	2
Mathematics	3	3	3	3	3	3	3	3
R.I.	ı	1	1	1	1	1	1	1
P.E.	1	1	1	1	1	1	1	1
Games	1	1	1	1	1	1	1	1
Technical Drawing					2	2	2	2
French/Drama	1	1	1	1				
Building					2	2	2	2
	10	10	10	10	12	12	12	12

# Optional for 4S/T/W/L - 2 periods per subject and one subject from each group

Physics	French	Geography	Music Art	Geography
German	Biology	History	Woodwork Engineering	History
Biology	Tec.Drawing	Chemistry	Geology	French
Tec.Drawing	Physics	Tec.Drawing		Commerce

# Optional for 4D/N/E/A - 2 periods per subject and one subject from each group

Woodwork	Geography	Woodwork Agricultural	Geography
Agricultural Science	History	Science	History
Metalwork	Science	Pottery	Science
Art	Design	Radio	Commerce
Radio	Drama	Metalwork	Music

#### YEAR FOUR

#### 1967-68

	4 <b>T</b>	4H	4W	40	4N	4D	4S	4 <u>L</u>	4 <b>A</b>
English	3	3	3	3	3	3	3	3	3
Mathematics	3	3	3	3	3	3	3	3	3
R.I.	l	ı	1	1	1	1	1	1	1
P.E.	1	1	1	1	·ı	l	1	1	1
Games	1	1	1	1	1	1	1	ı	1
Technical Drawing							1	ı	1
Science							1	1	1
French/Games	1	1	1	1	1	ı			
Building							2	2	2
Woodwork							2	2	2
Metalwork							1	1	ı
	10	10	10	10	10	10	10	10	10

#### Optional for 4T/H/W - 2 periods per subject and one subject from each group

Physics	Physics	Geography	Music Art	Geography
German	Biology	Physics	Woodwork Engineering	History
Biology	French	Chemistry	Geology Pottery	French
Tec.Drawing	Tec.Drawing	Tec.Drawing	20000-9	Commerce

# Optional for 40/N/D - 2 periods per subject and one subject from each group as above except German omitted

#### Optional for 4S/L/A - 2 periods per subject and one subject from each group

Agricultural Science	Geography
History	Agricultural Science
Radio	Radio
Art	Pottery
Pottery	Art

# <u>YEAR FOUR</u> <u>1968-69</u>

	4 <b>T</b>	4H	4E	4 <b>W</b>	4 <b>S</b>	4D	4 <b>L</b> .	4 <b>Ą</b>	4N	40
English	3	3	3	3	3	3	3	2	2	2
Mathematics	3	3	3	3	3	3	3	3	3	3
R.I.	1	1	1	1	ı	1				
P.E.	1	1	1	1	ı	1	1	ı	1	1
Games	1	1	1	ı	ı	1	1	1.	ļ	1
Technical Drawing								1	1	1
Physics								1	ı	1
French/Games/ App.Mathematics	1	1	ı	1	1	ı	1			
Building								2	2	2
Woodwork								2	2	2
Art								ı	1	1
Metalwork								2	2	2
History								ı	1	1.
Geography								1	1	1
	10	10	10	10	10	10	10	18	18	18

# Optional for all forms except 4A/N/O - 2 periods per subject and one subject from each group

Physics	Physics	Physics	Art	Geography
Chemistry	Biology	Geography	Geology Music	History
German	Geography	History	Woodwork Engineering	French
Biology	French	Chemistry	Pottery	Commerce
History	Tec. Drawing	Tec. Drawing		Tec. Drawing

Tec. Drawing

# Optional for 4A/N/O - 2 periods per subject

Agricultural Science

Radio

Art

irt

# YEAR FOUR

#### 1969-70

	4 <b>T</b>	4H	4W	40	4D	4 <b>L</b>	48	4E	4N
English	3	3	3	3	3	3	3	2	2
Mathematics	3	3	3	3	3	3	3	3	3
R.I.	1	ı	1	1	1	1	1		
P.E.	1	1	1	1	1	1	1	2	2
Games/App. Mathematics	1	1	1	1	1	1	1	1	1
French/Games App.Mathematics	1	1	1	1	1	1	1		
Technical Drawing								1	1
Building								2	2
Woodwork								2	2
Metalwork								2	2
Geography							,	1	1
Art								2	2
	10	10	10	10	10	10	16	18	18

# Optional for all forms, except 4E/N - 2 periods per subject and one subject from each group

Physics	Physics	Physics	Engineering	History
Geography	Biology	Chemistry	Art	Geography
History	Chemistry	French	Woodwork	Commerce
Geology	Tec.Drawing	Tec.Drawing	Music	French
Tec.Drawing			Pottery	

#### Optional for 4E/N - 2 periods per subject

Agricultural Science

Art

Radio

#### YEAR FIVE

				1962	<u>-63</u>						1963	<u>-64</u>		
		5K	5 <b>L</b>	5M	5N	5P	5R		5K	5L	5M	5N	5P	5R
English		5	5	5	5	5	7		5	5	5	5	5	7
Mathematics		5	5	5	5	6	7		5	5	5	5	6	7
History		3	3	3	3	3	3		3	3	3	3	3	3
Geography		3	3	3	3	3	3		3	3	3	3	3	3
French		5	5	5	3				5	5	5	3		
Latin German	}	. 4						}	4					
Physics	ζ	4	4	4				}	4	4	4			
Chemistry	5	7	4					5	•	4				
Biology		_	'							}				
Science					4	4	4					4	4	4
Mechanics		2	2	2	2				2	2	2	2		
Technical Drawing				4	4	4	4				4	4	4	4
R.I.		ı	1	1	2	2	2		1	1	1	2	2	2
P.E.		1	1	1	2	2	3		1	1	1	2	2	3
Games		2	2	2	2	2	2		2	2	2	2	2	2
Building						8							8	
Music Woodwork Art/Crafts Engineering Agricultural Science	$\left. \right\}$	4	4	4	4		4		4	4	4	4		4
House period		1	1	1	1	1	1		1	1	1	1	1	1
		40	40	40	40	40	40		40	40	40	40	40	40

# YEAR FIVE 1964-65

	5 <b>A</b>	5B	5C	5D	5D <sub>1</sub>	5E
English	2	2	2	3	3	2
Mathematics	3	3	3	3	3	3
Physics				2	2	
French	2	2	2			
R.I.	1	1	1	1	1	1
P.E.				1	1	1
Games	1	1	1	1	1	1
History						
Geography						1
Science						2
Technical Drawing						2
Woodwork						2
Metalwork						2
Art						2
House period						1
	10	10	10	12	12	20

#### Optional for 5A/B/C - 2 periods per subject and one subject from each group

Physics	Physics	Geography	Music Building	History
Latin	Chemistry	History	Design Art	Geography
Biology	Biology	Chemistry	Ag.Science Woodwork	R.I.
	Tec.Drawing	Tec.Drawing	Engineering Pottery	Commerce
			•	App. Math'cs.

#### Optional for 5D/D1 - 2 periods per subject and one subject from each group

French	ı	Geography	Building Woodwork	History
Geogra	aphy	Commerce	Agricultural Science	Commerce
Histor	.A	Chemistry	Art Music	Tec.Drawing
Biolog	3 <b>y</b>	Tec.Drawing	Design	
		R.I.		

# YEAR FIVE

	1965-66								966 <b>-</b> 6	Z		
	5 <b>A</b>	5B	5C	5D	5E		5 <b>A</b>	5B	5C	5D	5E	
English	3	3	3	3	3		3	3	3	3	3	
Mathematics	3	3	3	3	3		3	3	3	3	3	
French/Mathe- matics	1	1	1	1	1							
French/T.D.							1	1	1	1	1	
R.I.	1	1	1	1	1		1	1	1	1	1	
P.E.	1	1	1	1	1		1	1	1	1	1	
Games	1	1	1	1	ı		1	1	1	1	1	
	10	10	10	10	10		10	10	10	10	10	
1965-66 Optional for 5A/B/C - 2 periods per subject and one subject from each group												
Physics	Phys	sics		Geogi	aphy	Music		Hi	istor	7		
Latin	Biol	ogy		Histo	ory	Art		Ge	ogra	phy		
German	Frer	nch		Chemi	istry	Woodwo	rk	Co	ommer	се		
Biology	Tec.	Drawi	.ng	Frenc	ch	Engine	Engineering French					
				Tec.I	Drawing	Geolog	Ŋ					
Optional for 5D/F	E - 2	perio	ds p	er sub	oject ar	nd one su	ıbject	fron	each	ı grou	ιp	
French	Geog	raphy	•	Build	ling	Histor	<b>.</b> À	Ph	ysics	5		
Geography	Comm	erce		Woodv		Physic	s	Fr	ench			
History	Chem	istry	•	Engir Art	neering	Tec.Dr	awing	G G	ology	7		
Biology	Tec.	Drawi	ng	Music	:			Ar	't			
1966-67												
Optional for 5A/F	3/C -	2 per	iods	per s	ubject	and one	subje	ct fr	om ea	ch gr	oup	
Physics	Phys			Geogr		Music Art			ograp	•		
Latin	Biol			Histo	•	Woodwo			.story	•		
German	Fren		n œ	Chemi	•	Engine Geolog	_		ench			
Biology	rec.	Drawi	пR	rec.r	rawing	_	*	Co	mmer	e		

Optional for 5D/E - exactly as for 5A/B/C

# YEAR FIVE

		1967	7 <u>-68</u>					196	3 <b>-</b> 69		
	5 <b>A</b>	5B	5C	5D		5 <b>T</b>	5H	5W	50	5N	5 <b>D</b>
English	3	3	3	3		3	3	3	3	3	3
Mathematics	3	3	3	3		3	3	3	3	3	3
French/P.S.	1	1	1								
French/Extra R.I.						1	1	1	1	1	1
R.I.	1	1	1	1		1	1	1	ı	1	1
P.E.	1	l	1	1		1	1	1	1	1	1
Games	1	1	1	1		ı	1	1	1	1	1
Geography				2							
History				2							
Metalwork				2							
Art				1							
Technical Drawing				2							
Science				2							
	10	10	10	20		10	10	10	10	10	10
1967-68											
Optional for 5A/B	/C - 2 p	erio	ls per	subject	and	one	subje	ct fi	om ea	ach gr	oup
Physics	Physics	5	Geo	graphy	M	usic		Ge	ograp	ohy	
German	French		His	story		oodwo			stor	7	
Biology	Biology	<i>T</i>	Che	emistry		ngine eolog	ering Sy		ench		
Geography	Tec.Dra	wing	Con	nmerce	D	esign	1	Co	mmer	e	
Tec.Drawing					P	otter	.д	${f T}\epsilon$	ec.Dra	wing	
1968-69											
Optional for all	forms $\frac{3}{8}$	2 per	iods	per subj	ect	and c	ne su	ıbject	fron	n each	group
Physics	Physics	5	Phy	sic <b>s</b>		usic rt		Ge	eograp	hy	
German	Biology	7	Ged	ography	W	oodwo			story	r	
Biology	French		Che	emistry	P	otter		ľÌ	ench		
Tec.Drawing	Tec.Dra	wing	Tec	.Drawing	G	eoTog	y(THW	r) Co	mmer	e	

Tec.Drawing Tec.Drawing Tec.Drawing

<u>YEAR FIVE</u> 1969-70

	5 <b>T</b>	5Н	5E	5W	5S	5 <b>D</b>
English	3	3	3	3	3	3
Mathematics	3	3	3	3	3	3
Games/ Applied Mathematics/ German	1	1	1	1	1	1
Games/French/ Applied Mathematics	1	1	1	1	1	1
R.I.	1	1	1	ı	1	1
P.E.	1	1	1	1	1	1
	10	10	10	10	10	10

# Optional for all forms - 2 periods per subject and one subject from each group

Physics	Physics	Physics	Art	Geography
Chemistry	Biology	Geography	Woodwork	History
Biology	Geography	History	Geology(THE)	French
German	French	Chemistry	Music	Commerce
History	Tec.Drawing	Tec.Drawing	Engineering	Tec.Drawing
Tec.Drawing			Pottery	

# APPENDIX VII

#### SOME OBSERVATIONS ON THE SUBJECT OF NON-STREAMING IN THE

COMPREHENSIVE SCHOOL, WITH SPECIAL REFERENCE TO

THE WOODLANDS SCHOOL, COVENTRY

#### SOME OBSERVATIONS ON THE SUBJECT OF NON-STREAMING IN THE

#### COMPREHENSIVE SCHOOL, WITH SPECIAL REFERENCE TO

#### THE WOODLANDS SCHOOL, COVENTRY

What we do with our pupils in the first two years is, in a sense, the most important decision the school has to make with regard to the pupils committed to its charge. There is a very good argument for starting off with unstreamed forms, based upon the fact that it is impossible to discover any significant correlation between test results at 11 years of age and subsequent performance in the secondary school when dealing with a relatively large intake as does the modern comprehensive school. Certainly there is no correlation in the V.R.Q. range 90-130 plus (i.e. for 70% of the population). The correlation for the bottom 30% is more significant, and if some form of limitation is to be imposed on the work group in the first instance, then this bottom 30% could be excluded, but certainly no higher a proportion and not even this if we are concerned with social and personal development as well as the learning of subjects, and if they are excluded, this 30% will not do as well academically as if they had been included.

In my FORUM article I said, "The untapped source of ability of which the Robbins Report speaks will not be fully revealed until there is a general relaxation of streaming during the first three years in the secondary school and all subjects are taught during at least the first two of these within a system of parallel forms embracing all pupils in the V.R.Q. range 90-130 plus. Otherwise the majority of pupils will be denied the opportunity of working to the standard of which they are capable."

I would like to explain this in greater detail.

If we look at all L.E.A. maintained schools then 13% of all pupils in a given age group gain five or more subjects at '0' level, i.e. 39 out of an intake of 300.

For the best of the comprehensive schools (half of which are creamed) the figure is 15% or 45 out of 300.

At The Woodlands School the figure is approximately 40 out of 300 and these are pupils from whom the sixth form come. The range of ability from which these 40 pupils come lies between V.R.Q. 104 and 135, which represents something like 45% of the total intake for any one year. In order to ensure that future sixth form pupils are given adequate opportunities, it is necessary to offer a basic course in unstreamed groups to at least 45% of the intake or approximately four and a half forms (135 pupils). In fact, four subjects at '0' level are acceptable for entry to the sixth form, which means that the range of ability must initially be extended to include all pupils in the range 135-101 from where comes those 60 pupils who will eventually obtain four or more '0' level subjects.

Furthermore, if we look at the national picture with regard to those pupils who eventually gain three or more 'O' levels, we find 19% achieve this in all maintained schools. In the best of the comprehensive schools (still creamed) the figure is 27% or 81 out of 300. At The Woodlands School the figure is 75 and to ensure that all these pupils are included in the net, as it were, it is necessary to offer an initial course to all pupils whose V.R.Q.'s lie between 98 and 135.

If finally we look at those pupils who will eventually gain at least four G.C.E. or C.S.E. subjects by the end of year five, we ought to include all pupils whose V.R.Q.'s lie between 90 and 135 or 70% of the year's intake, i.e. 210 pupils or seven forms out of ten.

Looked at another way - if we examine the 300 pupils in any year group at any stage during the first two years then

```
the 30 most able pupils are to be found in the V.R.Q. range 104-130 plus
the 60
                            11
                                 11
                                    11
                                                                   101-130 plus
                            Ħ
                                 11
         11
               11
                                    11
                                         11
                                              11 11
                                                       11
                                                               11
the 90
                                                                     98-130 plus
                      11
the 120 "
               11
                            11
                                 11
                                    11
                                         11
                                              11
                                                 11
                                                       11
                                                               11
                                                                     93-130 plus
the 150 "
                      17
                            11
                                 11
                                         Ħ
                                              11 11
                                                       11
                                                                     92-130 plus
the 180 "
                                                                     88-130 plus
```

This means that to ensure maximum opportunity in the initial stages for even 60% of the pupils entering the school in any one year (92% of whom will be candidates for at least four G.C.E./C.S.E. subjects by the end of year five) we should include all pupils with V.R.Q.'s between 88 and 130 plus in a system of parallel forms i.e. just over 70% of the intake.

This really is what Furneaux was saying in his book THE CHOSEN FEW, when he wrote that the present waste of talent could be avoided if the top 50% in the ll-plus examinations were all started on courses which could lead to attempts on at least five papers at 'O' level in the G.C.E. He calculated that the number of pupils qualifying for university entrance might under such a system be increased by a factor of 70% and said, "It is a serious problem apart from a question of justice, because it means that this country is failing to pick out as many university graduates as other countries can." This is precisely what Robbins meant when it spoke of the untapped source of ability.

In so far as we eventually commit ourselves to a breaking down process, either during the first two years or in the third and fourth years, there has to be some kind of selection and here we must be very careful indeed.

Let me give an example of why this is so. If we were to choose from the 300 pupils who enter The Woodlands School each year an 'A' stream at any stage during the first three years, using the best method at our disposal, then at least 50 boys would qualify for consideration in the sense that any lists of possible 'A' streams would contain at least 50 different names according to whether the list was compiled after one term, one year, one and a half years, two years and so on. Of these 50 names, 10 would appear on all the lists and could be regarded as certainties for the 'A' stream. Choosing 20 others from the remaining 40 gives rise to 40C20 different possibilities or one hundred thousand million groupings. In practice we can only form one of these hundred thousand million different streams, believing that we have chosen the best or the right one. This is not the case, however, but because the group we have chosen ultimately does as well as any other would have done, we regard this as confirming the rightness of our choice. This is all right as far as the group chosen is concerned, but rather tough on the others who have been rejected, but who with equal validity might have been chosen and who would, if chosen, have done equally as well.

The same argument applies to the formation of any stream, 'A' or otherwise.

This means that rigid hierarchical streaming into groups of 30 is not possible in the comprehensive school and some system of parallel forms must operate, although some would perhaps wish to make out a case for taking out at some stage a remedial form and a form composed of the very able. Cer-

tainly who ought to go into the remedial class is fairly obvious, but who should go into a top stream is not easily ascertained and if such a decision is made at any stage during the first two years, it will be subject to gross inaccuracy (up to 60%) by the third and certainly the fourth year.

Another reason why rigid streaming is not possible in the larger school lies in the fact that it is impossible to choose a stream of 30 pupils on the basis of all round performance and at the same time ensure that its members generally speaking will also be in the top 30 places for the subjects considered individually. From an annual intake of 300, less than half the pupils chosen for the top stream will be amongst the best 30 at Mathematics or History or any of the basic subjects. In short, any stream that is formed by whatever method will be unstable in the sense that it will not contain even initially the pupils whom it is supposed by definition to include and the situation will get worse as time goes on. (See separate article entitled 'Streaming in the Secondary School').

Generally speaking, the smaller the group being chosen the greater the inaccuracy in either streaming or setting. The possibility of being able to stream or set with some degree of justification is an inverse function of the number of pupils in the year group and directly proportional to the number of pupils being selected for each stream or set, e.g. we would find it more difficult with an intake of 300 to stream or set into groups of 30 than would a smaller school of intake 200. On the other hand the smaller school would find it more difficult if twenty streams each containing only ten pupils were being formed. Choosing ten streams of 100 from an initial population of 1,000 would be even more difficult than choosing ten streams of 30 from 300.

These matters are, of course, partly a property of the larger school population where the pupils are crowded together tightly in the normal distribution curve so that to separate out small groups who are distinctly different from the rest is impossible, but the situation is rendered more difficult by the fact that performance fluctuates according to certain conditioning processes that operate on the pupil after he has been selected for a particular group, one of which is streaming itself.

D. Thompson

May, 1968.

## APPENDIX VIII

# NOTES FOR THE GUIDANCE OF STAFF ON UNSTREAMED

FIRST YEAR GROUPS

#### NOTES FOR THE GUIDANCE OF STAFF ON UNSTREAMED FIRST YEAR GROUPS

There is some evidence that the process of streaming initiates, or at least perpetuates, certain undesirable social attitudes leading to the well-known situation in which pupils who are generally badly behaved are found to be concentrated within the same form or group of forms. There is also some evidence that in a rigidly streamed school, many pupils do not do as well in school work as they otherwise might, since labelling pupils say D, E or F appears to set a limit to what they think they are capable of achieving and, indeed, to what the staff who teach them believe such pupils are capable of achieving.

The operation of unstreaming is aimed primarily at

- (a) achieving more desirable social attitudes or, conversely, eliminating certain undesirable ones;
- (b) so developing each boy's capabilities that his achievements, whether in external examinations or otherwise, are an accurate reflection of his true potential.

It must be remembered that if a pupil's attitude towards school is wrong, then increasing the total amount of time to be spent on individual subjects will not in itself be effective in producing a better performance. Conversely, if a pupil's attitude is good, then it is remarkable what that pupil can achieve within a relatively short space of time under the most adverse of circumstances. The question of a boy's attitude towards school must be regarded as all-important since it is the basis of future progress or lack of it.

It must be expected that during the first year the amount of formal work got through in academic subjects might not be as great as one might get through with an A form in a streamed situation. In the long run this should not be regarded as a serious handicap to the so-called 'more able' pupil, who by the time the real push towards external examination work commences will have been placed in the appropriate block. It must be remembered that unstreaming is the process that will enable us to discover who are the pupils whom we may regard as the 'most able' in secondary school work since the ll-plus results are incapable of giving us this information.

#### AIMS AND OBJECTIVES DURING THE FIRST YEAR

- 1. To achieve a high standard of self-discipline with as little recourse to punishment as possible.
- 2. To increase a boy's confidence in himself and to help him to think more highly of what he is capable of achieving. Many pupils do not achieve much because they have come to regard themselves as incapable of much and streaming is one more thing which re-inforces the view they already hold of where their rightful place is and reduces the ceiling of their attainment and effort still further.

To increase a boy's self-esteem without making him conceited must be regarded as a very important aim indeed. In this connection, the virtues of determination, perseverance and hard work should be continually stressed as being equally important ingredients for success as any 'natural cleverness' with which an individual may be endowed. This will entail being generous in one's praise of a pupil's achievements where this is possible. Many boys do not make the effort because

it has not previously led to success, only continued failure. The fear of repeating this failure or a disbelief that they have it within them to achieve success holds them back far more than any lack of 'native ability'. It is our job to get them to take the steps they have never before had confidence to take. A major ingredient in this situation as far as academic subjects are concerned will be getting a boy to take a pride in his written work and in his books generally.

- 3. To bring home to the boys the view that doing well in school subjects is only half the picture and that we regard it as being equally important to do well in such things as being friendly, generous, good mannered, kind, thoughtful for others, honest, punctual, regular in attendance, well behaved and loyal.
- 4. To achieve a much higher standard with regard to spelling, speech, neatness of written work, written English and handwriting. The responsibility for ensuring this must not be regarded as belonging solely to the English Department and every member of staff must take part in a combined assault on these things. A part of each lesson, for instance, should be devoted to spelling.

It must in future be regarded as of prime importance that a boy on leaving school can spell correctly, write with a good hand and in good English, speak distinctly and with confidence and handle the basic number processes with facility and accuracy. Unless these fundamentals are correct, then any edifice we try to build on them will be shaky. The very fact of concentrating on these things, seen by the boys to be a concerted effort by every member of staff, should in itself produce within a comparatively short space of time an improvement in all-round standards.

#### ADVICE AND INSTRUCTIONS

- 1. Apart from commendations, encouraging and helpful remarks should be written in a boy's exercise book.
- 2. A short period might well be set aside at the beginning of each lesson for the purpose of walking round the class inspecting exercise books and making useful comments on them. Homework could be publicly commented on in this way for the benefit of all.
- 3. Boys must take a dictionary with them to each lesson.
- 4. At the beginning of the year, and at frequent intervals, the boys should be told that they will be judged by their own efforts and progress in this school and that primary school classifications are no longer being applied to them.
- 5. At the beginning of the year forms will be given reading lists in appropriate school subjects. They should be encouraged to read as widely as possible.
- 6. The possibility of the more able boys in each form helping the less able should not be overlooked where appropriate.
- 7. Each piece of written work might be given two marks, each out of the same total, one for presentation and one for content.
- 8. Corporal punishment for poor work should not be administered and greater emphasis should be placed on repeating the work.

- 9. Good work done by the boys should be displayed if possible from time to time in order to act as a stimulus to encourage higher standards of work.
- 10. The possibility of the Headmaster or Deputy Headmaster or Heads of Departments being invited to visit the class to look at some work should not be overlooked.
- ll. In order to achieve a high standard of discipline in the classroom, a set pattern of behaviour on the part of the boys should be insisted upon by all members of staff. No boy should sit when he enters the room until told to do so and boys who are late for the lesson should be trained to apologise instantly. Chairs should be put under the desks at the end of the lesson, and no bags should be permitted to rest on desks or in the aisle. Walking around the classroom should not be permitted. These procedures should be well practised in the first instance.
- 12. Correctly spoken English should be encouraged at all times.
- 13. In order to help safeguard the interests of the more able pupils, boys should always be invited to do extra work over and above their normal homework.
- 14. Boys should undertake some piece of orginal individual work as part of the normal requirements of their school studies during the first year.
- 15. Great stress should be laid on correctness and neat setting out of work.
- 16. The importance of possessing full writing equipment, including ink, and taking this to each lesson should be emphasised from the beginning.
- 17. Emphasis must be placed on correct spelling and use of dictionary in all subjects. The first part of each lesson should be devoted to making the boys realise how important we regard this. Spelling lists will be issued in book form to each member of staff, and each boy, by the end of the first year, will be expected to have mastered a minimum number of words.

# APPENDIX IX

## LIST OF SUBJECTS FOR WHICH PUPILS WERE ENTERED

IN THE 'O' LEVEL EXAMINATIONS DURING

THE PERIOD 1960 - 70

# LIST OF SUBJECTS FOR WHICH PUPILS WERE ENTERED IN THE O' LEVEL EXAMINATIONS DURING THE PERIOD 1960 - 70

# Northern Universities Joint Matriculation Board

	000	19	62	63	49	65	99	29	80	69	1970
	1960	1961	1962	1963	1964	1965	1966	1961	1968	1969	70,
Art	X	Х	X	X	Х	Х	Х	Χ	Х	X	Х
Biology	X	X	X	X	Х	Х	Х	Χ	Х	X	Х
Building Const'n Drawing	15		Х	Х	Х						
Chemistry	X	X	Х	X	X	X	Х	Χ	Χ	Х	Х
Craft		E								X	X
Craft Design and Practice		Х	X	Х	Х	Х	X	Х			
English Language	Х	X	X	X	Х	Х	Х	Χ			
English Literature	X	X	X	Х	Х	X	Х	Х	Х		
Engineering Work- Shop T. & Practice	Х	Х	Х	Х	Х	Х	Х	Х	Х		
French	X	Х	Х	Х	Х	X	X	Х			
Geography	Х	Х	X	Х	Х	Х	Х	Х	X		
Geology					,				Х	Χ	X
Geometrical and Engineering Dwg.	Х	Х	Х	Х	Х						
General Paper				Х							i.
German	Х	Х	Х	Χ	X		Х	Х			
Greek and Roman Literature				Х							
History	Х	X	X	Х	Χ	Х	Х	Х	X		
Latin	Х	X	Χ		Х	Х	Х	X			X
Mathematics	Х	Х	Χ	Х	Х	Х	Х	X	Х	Х	Х
Mechanical Science	1		Х	Х	X						
Metalwork							Х				
Music	Х	X	Х	Х		Х	Х		X	X	X
Pure Mathematics with Mechanics		, L	-4	Х	Х	X	Х	7			
Physics	Х	Х	Х	Х	X	X	X	Х	Х	Х	X
Physics with Chemistry	Х	Х	X	Х	Х	Х					
Scripture Knowledge	Х	Х	Х	Х	Х	Х					
Spanish						X	Х				
Voodwork	X	X	X	X	X	Х	X		X	X	X

## LIST OF SUBJECTS FOR WHICH PUPILS WERE ENTERED IN THE

## 'O' LEVEL EXAMINATIONS DURING THE PERIOD 1960 - 70

## Associated Examining Board

	1960	1961	1962	1963	1964	1965	1966	1961	1968	1969	1970
Agricultural Science	X	X	Х	Х	X		-				
Applied Mathematics				X	1						
Art and Craft	X	X									
Building Practice	Х	X	Х	X	X						
Building Construc'n	X	X	X	Х	Х	,		Χ			
Brickwork						Х	Х				
Commerce					Х	Х	Х	Х	Х	X	Х
Craft	X	X		Х							
Economic History	Х	X	X	Х	Х	Х	X	Х			
Engineering Work- Shop T. & Practice										Х	Х
English Language	X	Х	Х	Х	X	Х	Х	Х	Х	Х	X
English Literature										X	Χ
French									Х	Х	X
Geography									Х	Х	X
Geology							X	Х			
Geometrical Drawing	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
German								Х	Х	X	
History										Х	X
Latin						Х					
Mechanics	X	X	X								
Religious Education							1		-		X

## APPENDIX X

LIST OF SUBJECTS FOR WHICH PUPILS WERE ENTERED

IN THE CERTIFICATE OF SECONDARY EDUCATION DURING

THE PERIOD 1963 - 70

## LIST OF SUBJECTS FOR WHICH PUPILS WERE ENTERED IN THE CERTIFICATE

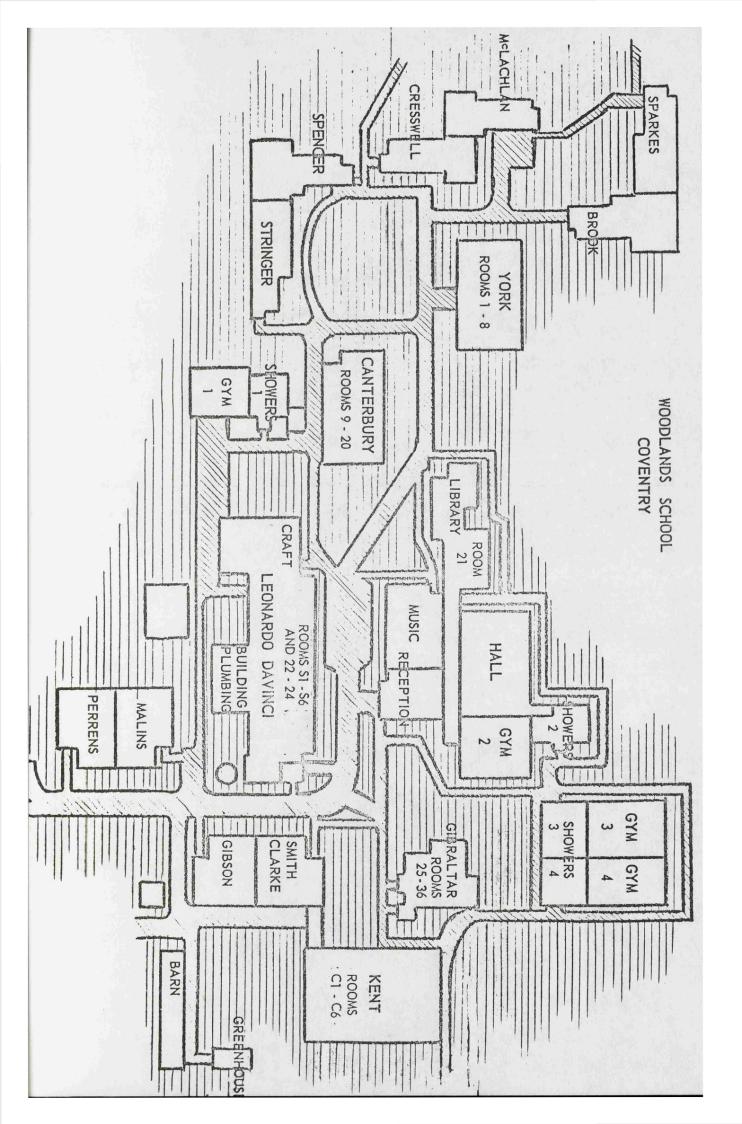
# OF SECONDARY EDUCATION DURING THE PERIOD 1963 - 70

## West Midlands Examination Board

								-
	1963	1964	1965	1966	1967	1968	1969	1970
Art and Craft	16			Х	Х	Х	X	X
Biology	X		X	Х	Х	Х	X	X
Chemistry	X	X	X	X	Х	Х	X	X
Commerce		X	X	X	Х	Х	X	X
English	X	X	X	Х	Х	X	Х	Х
French	X	X	X	X	X	Х	Х	Х
Geography	X	X	X	X	X	X	X	X
Geology					Х	Х	Х	X
German	X	X	Х	X	Х	Х	Х	X
History	X	X	X	Х	Х	X	Х	X
Mathematics	X	Х	X	Х	Х	Х	Х	Х
Metalwork	X	Х	Х	Х	X	Х	Х	X
Physics	X	X	X	Х	Х	Х	Х	X
Religious Education			Х		Х	Х	Х	Х
Technical Drawing	X	Х	Х	Х	Х	Х	Х	Х
Woodwork	X	X	X	Х	Х	. Х		X

# APPENDIX XI

PLAN OF THE SCHOOL



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#### ORGANISATION IN THE COMPREHENSIVE SCHOOL



An investigation into the effects on certain educational results of a transition from a streamed to an unstreamed form of organisation in a large comprehensive school

Between 1954 and 1961 The Woodlands School, Coventry, a ten form entry boys comprehensive school, adopted a form of organisation in which pupils on entering the school were allocated to work groups that were rigidly streamed on the basis of the eleven plus examination results.

From 1962, a relaxation of streaming commenced which eventually culminated in all school subjects being taught to all pupils, in the first three years, in unstreamed forms, without recourse to setting.

Between 1968 and 1972, an investigation designed to examine the effects on certain educational results of the transition from a streamed to an unstreamed form of organisation, was carried out. The indicators chosen included external examination entries and results, the voluntary 'staying on' rate, the performance of selective and non-selective pupils, pupil achievement in relation to season of birth, and the influence of the house system in determining pupil performance.

Previous experiments had compared either results from streamed schools with those from similar non-streamed schools or results from streamed classes with those from unstreamed classes within the same school. The Woodlands experiment differed from earlier experiments in so far as it related to a school that was originally rigidly streamed and which changed gradually, over a period of a few years, to one that was unstreamed.

The evidence from The Woodlands experiment suggests that a non-streamed form of organisation, operated by a staff who believe in and are dedicated to the idea of mixed-ability teaching, who do not see the pupils' worth primarily in terms of academic achievement in the early years and yet who retain the basic techniques of class teaching as their principal method of instruction, represents a more favourable structure for the vast majority of pupils, including the so-called able ones, than does a system based on streaming.