The relationship between parental encouragement and school achievement

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'THE RELATIONSHIP BETWEEN PARENTAL ENCOURAGEMENT AND SCHOOL ACHIEVEMENT'

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C O N T E N T S

LIST OF TABLES

O U T L I N E

In recent years interest has begun to focus on the interaction between the home and the school, particularly in so far as it affects the progress and development of children.

Douglas (1964) and more recently the Plowden Report (Central Advisory Council 1967) have indicated the important influence of the home background on the development of Primary school children. Fraser (1959) has shown the importance of parental encouragement in a sample of secondary school children.

Of the many important aspects of the development of children which can be influenced by parents, this study is concerned with only one - school achievement - and its relationship with some factors of parental encouragement.

A sample of 183 children was drawn from the wide range of ability in seven secondary schools in a town of population 73,000. The parents were visited in their own homes, where the interviewer completed a schedule of questions dealing with motivational, emotional, cultural and material aspects of the home background. Data on each child's achievement in school subjects was obtained from the school and an indication of his ability was gained from the Local Education Authority, by reference to the 11+ marks.

On this information the children were formed into seven Ability groups. The significance of each item of the schedule was tested against this measure of ability.

The items were grouped hypothetically to describe components of parental encouragement, termed motivational, emotional, cultural and material factors. All the items of the schedule were taken to constitute the Total Parental Factor and only those which reached the 5% level of significance formed the Significant Parental Factor.

The correlations between each of these factors and ability and achievement were calculated for the 11+, 12+ and 14+ ages of the children. In the case of selective school children, a further measure of achievement was taken on their General Certificate of Education 'Ordinary' results.

The correlations revealed a close relationship between parental encouragement and Ability. This association grew closer as the child progressed through the secondary school. The factors having the closest relationship with Ability were the Cultural and Material. By the age of 14 years the Motivational and Cultural factors had the greatest influence on achievement.

One section of the sample was taken to compare Improvers and Deteriorators. For these two groups the mean scores on Emotional Factor II differed significantly. There was also a significant difference in means for the two composite factors. The relationship between Parental Encouragement and Achievement for Deteriorators was closer than that for Improvers.

When the selective and non-selective school sections of the sample were considered separately, differences in emphasis were found in the effects of the factors on the amount of improvement. The Significant Parent Factor was closely related to the degree of improvement in selective school children, but it was barely related to the improvement of the non-selective children.

The replies of two groups of parents were analysed to seek patterns of response for parents of able-achievers and parents of children who had changed jobs during their first post-school year. The former group exhibited many of the traits intuitively associated with them. They inhabited the more prosperous homes and had shown a very keen interest and involvement in the education of their children. In the latter group, lack of interest and communication between parent and child typified their responses.

The research suggests that greater attention should be paid to fostering good attitudes to education among parents and that emotional stability in the home and greater involvement of parents in the education process, can reinforce the child's scholastic achievement in the secondary school.

S T A T E M E N T

OF THE

P R O B L E M

There has been an increasing awareness of the affects of home background on the school progress of children since 'secondary education for all' followed the 1944 Education Act. However, it was not until recent years that attempts were made to define scientifically the most influential factors. Wiseman (1964a) called for systematic study of the attitudes of parents to the education of their children. Douglas (1964) and the Plowden Report (Central Advisory Council 1967) have shown the reinforcing effects of good home backgrounds on the development of primary school children. Fraser (1959) in a study of secondary school children considered the motivational, emotional, cultural and material aspects, concentrating primarily on the cultural and material factors. She found a close relationship between parental encouragement and school progress.

The need is to investigate further the aspects of parental encouragement which affect secondary school progress. Advice to parents is often based on assumptions suggested by unscientifically correlated data. The problem is to determine factors of the home background which are related to the

ability of the child and to assess the relative influences of the factors on the child's secondary school achievement, with particular reference to the motivational and emotional aspects.

REVIEW OF THE LITERATURE

The Ministry of Education (1947) stated:-
'To face children with conflicting standards in home and school is very undesirable'. They urge improved contact between home and school, development of knowledge in parents of the day to day running of the school; and that a comparison be made between attitudes of parents where close contact is maintained and where no contact is made. The schools have attempted to produce this contact by providing open days, parents' meetings, Parent Teacher Associations etc., but the criticism of teachers has been that the parents most in need of such contact have been the ones taking least advantage of the opportunity. The problem of contacting, informing and interesting this group of parents remains unsolved. Some children in this group will be from broken homes and others from homes in which the parents show a sheer lack of parental interest.

'Beset by so many handicaps, the children from such homes lost ground all through the infants and junior schools. By the time they reached secondary school they had sunk firmly to the bottom twenty per cent, whatever their latent potential'. (Department of Education and Science 1964).

These families may not have attention focussed upon them unless they present such a problem that they come under some other social service. The implications in the Canford Families (1962) are that there are families which have potentiality to live more happily but that at present they are failing to function adequately and to provide a home where each, adult or child, gets satisfaction and support. This is a problem not only affecting school performance and capacity to work, but also the quality of parenthood in the next generation.

But the influence of the home on a child's school performance is not confined to one section of the ability range of the children nor to one socio-economic group of families. Curry (1962) concluded that, as the intellectual ability decreases from high to low, the effect of social and economic conditions on scholastic achievement increases greatly. This result is echoed by Wiseman in the Plowden Report (Central Advisory Council 1967).

The large follow-up study of children born in 1946 reported by Douglas (1964) includes among its many important findings that for middle class children school and home reinforce each other positively and for working class children negatively. It shows

that between 8 and 11 years of age measured intelligence responds to environmental factors particularly in the 110-120 I.Q. range. These factors affect selection at 11+. Parental encouragement plays a large part in the interest and achievement of the children at this age. It is likely that in the pre-school years mental development is stunted by intellectual poverty of the surroundings. 'The first need' states Douglas 'is to measure more fully the impact of the family on the early processes of learning and on the acquisition of incentives before the child reaches school'.

A number of studies have sought factors which would ensure a better assessment of the child's intellectual potential at the age of eleven years. Floud, Halsey and Martin (1956) conclude that in most parts of the country the chances of children, of a given level of ability, entering grammar schools are no longer dependent on their social origins. However, the precise nature of the hindrances placed by their home background in the way of educating working class children in grammar schools, urgently needs investigating both for its own sake and as an

immediate problem of educational organisation. The need arises to understand the optimum conditions for the integration of school and home environment at all social levels, in such a way as to minimise the educational disadvantages of both and to turn the educational advantages to full account. Derrick (1963) found a large difference between his and Floud's findings on parental attitudes to education. The indication here is that the intervening years between these two studies have been a time when there has been an encouraging increase in the value placed by parents on education.

According to Griffiths (1959) parents of deteriorators lacked grammar school type of education. Deteriorators had less encouragement from their parents to do well at school than did improvers from their better educated parents. Frequent absence from school for inadequate reasons is a contributory cause of deterioration.

Campbell (1952) criticises previous efforts to determine the correlation between achievement and home environment because of unsatisfactory methods of collecting data about homes and undue stress being paid to socio-economic status of the home, neglecting social attitudes, ideals and behaviour.

He assesses homes by socio-cultural level. One hundred children are formed into four groups: (1a) failing to live up to expectations in grammar school, (1b) living up to grammar school expectations; (2a) and (2b) are similarly defined for the modern school. His conclusion is that although (1a) and (1b) have same average level of intelligence and primary school achievement they differ greatly in the social and cultural levels of their homes. Similar results hold for groups (2a) and (2b). By including a factor for home environment in selection, misplacements could be reduced by one third.

Drawing a similar conclusion, Fraser (1959) states 'the results have shown clearly that factors in the home environment are more closely correlated with school progress than with intelligence and that the difference between the correlations is highly significant.

In an experiment in which Baker (1961) controlled the socio-economic status of the home, the conclusion reached was that in so far as achievement is measured by standardised tests and teacher ratings intelligence does influence achievement.

Wiseman (Niblett 1965) criticises the fact that a great deal of the work in this field has been limited to physical and economic conditions. Very little has been done on the social attitudes and ideals of different groups. He also points out that almost all the investigations examine the retarding effects of bad environment and little account is taken of the stimulating effects.

Factors in the home environment of four hundred Aberdeen children were studied by Fraser (1959). The parents were interviewed in their own homes to gain information on the motivational, emotional, cultural and material aspects of the environment. Taken with measures of the child's attainment gained from the schools, Fraser was able to compare factors in the home background with I.Q. and attainment.

Significant correlations were obtained for items such as parents' attitude to education, income, living space, parents' education, newspaper and magazine reading, general impression of the home background and (giving a negative correlation) family size. The highest correlation was between attainment and parental encouragement (·660).

Motivational aspects of the parent's attitude may be judged by consideration of their decisions

at choice points in the child's career. Furneaux (1961) gives one powerful influence tending to promote premature leaving as the fact that the 16 year-old grammar school boy has a friend of the same age who has already started work and whose independence and apparent affluence are envied.

Mannino (1962) found that factors which were related to school persistence were the opinion of the mothers to education, the mothers' expectations concerning school attainment and occupational achievement and the acquaintance with families having children known to have withdrawn from school.

There is growing recognition that the position of the father in the family constellation requires greater attention - Young-Husband (1965) and Canford Families (1962). Mussen, Young and Gaddini (1963) studied the influence of father-son relationships on adolescent personality and attitude and found that comparing groups having sufficient with groups having insufficient, paternal affection, the latter were less secure, less confident and their achievement needs were weak.

In the wider sphere than the family the effect of peer relations has been studied and found to be an important contributory factor in the attitudes of

young people. In a study of factors relating to over and under-achievement in school Kurtz and Swanson (1951) found that positive achievers have friends who also wish to do well at school, whereas negative achievers were more often alone. The plight of young people who do not integrate into any wider community such as youth clubs is highlighted by Mary Morse (1965).

Reverting to the home conditions Hunt (1961) suggests that house-proud parents may well succeed in hampering the development of their children and even lowering their final level of intelligence by curtailment of their activity. For positive achievers pride, confidence, affection, interest of parents in their children as shown by parents reading to, and playing with, their children and attending school functions, were all very much in evidence (Kurtz and Swanson 1951). The positive achiever tends to respect his parents, take them into his confidence, to be concerned to please them and to return their love. Negative achievers appear to have a comparatively limited place in the home, less exchange of affection, mutual respect and desire to measure up to expectations. In fact even expectations appear limited.

In respect of visits paid to the school by parents, Halsey and Gardner (1953) reported that whereas 75:4% of middle class parents paid visits, only 46·9% of lower working class parents did so. In a sample of 700 London grammar school boys, the working class boy from a large family had less aspiration and parental pressure towards achievement and confessed less interest in extra curricular activities.

'Anxiety tends to impair problem solving ability' was a conclusion of Mussen (1963), and Tuckman (1966) in a case study of backward readers found a great degree of maladjustment in the families of these children.

A study of maladjusted children in the grammar school by Chazan (1959) revealed that there existed adverse environmental factors in nearly all cases. Of sixty children considered faulty, parental attitudes were a main causitive factor in forty-two cases and unsatisfactory home conditions and family circumstances occurred in 24 cases. Parents of children who presented neurotic symptoms tended to be over anxious with much parental conflict over the handling of the child.

The emotional atmosphere of a household is liable to be influenced by the degree of control exercised by the parents. Gabriel (1964) categorised parents as: over-possessive, rejecting, authoritarian, over-permissive and democratic. And Bronfenbrenner (Glidewell 1961) enumerates alternatives which require the parents decision; should he exercise control over the child's activities or exercise limited control; should he express warmth and support or express hostility and rejection; should he provide companionship or maintain his distance? Is the parent to rely on instinct, take the advice of friends or 'go by the book' in the upbringing of his children?

Parents need help. They need the broader and more scientific views of child development which teachers should be able to provide (Mental Health and Education 1961); better understanding of the building up of the child's mental health in the normal family setting; enlightenment about underlying causes; help from the wider units of society on which they are dependent for their own happiness and social integration (Winnicott 1964) and greater opportunities to understand the work of their child's school and to discuss their child with the school. (Political and Economic Planning 1961).

An experiment illustrating the reinforcing potential provided by parental encouragement on the learning of an academic subject was given by Hayman and Johnson (1963). The project was concerned with teaching Spanish to 5th and 6th grade children using open circuit television as the medium. Parents who had volunteered were instructed in the Parent Teacher Association and the programmes were telecast after school hours so that pupils and parents could listen. The results left little doubt that parents can increase their children's learning by becoming directly involved in the instruction process. This cooperation also helped other subjects by increasing the interest shown by the parent in the child's work.

The international scene concerning parent education was surveyed by Stern (1960) who found that in many countries experimental work had been done but had not led to a permanent or stable organisation. There was a widespread interest in parent education and the same kind of problems had arisen everywhere. The view that society can rely on parental instinct has been steadily disproved. To be effective, schooling is regarded as dependent upon the intelligent support and cooperation of parents.

Stern concludes that if parents are hostile or indifferent, public education is found to be ineffective. Parents are tacitly expected to maintain their children in a constant state of scholastic receptiveness.

In a diagnostic study of the learning of the parental role, Stern (1959) concluded that the most prominent influence was the parent's own childhood but that parents were not afraid of modern psychology. Mays (1964) found that in so far as discipline is concerned, parents either imitate the treatment meted out to them as children or react strongly in the opposite direction. He concluded that training in parenthood is still at a most primitive level.

Efforts are made to overcome emotional difficulties caused by faults in the interaction between home, school and child by such methods as the counselling service in the United States and Canada. The Parent Education Counselor in Canada attempts to help parents of normal children who are experiencing academic, social or emotional difficulties.

In this country Young (1964) has called for home and school to be drawn more closely together by enrolment of parents in school service groups. The steadily rising educational standards of the mass

of the population have led to parents beginning to form associations engaged in research and campaigning for better conditions in the schools (Niblett 1965)

In concluding that factors in the home are overwhelmingly more powerful than those of the neighbourhood and school, Wiseman (Central Advisory Council 1967) states that much more attention to environmental effects on education needs to be given in the training of teachers. Peaker (Central Advisory Council 1967) sees ample scope for the use of persuasion in dealing with less cooperative parents, while recognising the need for ingenuity and tact.

> ''One is soon inevitably brought to realise that mental health is inextricably linked with the efficiency of parents and the competence of teachers. The conclusion is inescapable that among the primary purposes of education in modern society must be the production of parents who will bring up their children in an emotional atmosphere which allows them to have a feeling of security and protection of being wanted and settled. At the same time they must learn to allow their children the chance to grow and develop without restriction or constriction, to learn to accept responsibility and to perform duties gradually and increasingly important and complex. Then the continual friendly contact, aid and encouragement of adults should enable them gradually to mature, accepting change without distress, meeting stresses with an assured efficiency and elasticity and solving problems in a creative, in place of a complaining, way.'' (Wheeler 1961)

Although the concern is for the development of the whole personality, it is recognised that one cause of stress in children is their relationship with school and the inter-relation between home, school and child. Consequently if the parent is to fulfil his function he should be aware of the beneficial, and harmful, aspects of parental encouragement.

DESIGN OF THE EXPERIMENT

1. THE SAMPLE

2. ITEMS IN THE ENVIRONMENT

3. THE INTERVIEW

4. MEASURES

5. THE EXPERIMENTS

6. GENERALISATION

DESIGN OF THE EXPERIMENT

1. THE SAMPLE

The area chosen for the study is a Municipal Borough - population 73,000 - in the South West of England. Secondary education is provided by two single-sex Grammar Schools, a Technical High School and seven non-selective schools - excluding the provision for Roman Catholics and the private sector of education. The catchment area for the selective schools is larger than the confines of the Borough, but for the purpose of this study only pupils within the catchment areas of the non-selective schools are included. Thus the area constituted a convenient educational unit. It is known, and accessible to the interviewer.

The population has expanded considerably since the last war with the development of light industry in the neighbourhood. One large Council Estate existed before the war - with its attendant Secondary School - and more recently two newer Council estates have had their secondary schools attached. Four older schools serve the remainder of the Borough.

It was desirable to take a sample of children of as wide a range of ability as possible, whose parents represented as wide a band of the socio-economic scale as possible. To exclude educationally subnormal children and those who used the Private Sector, would impose restrictions on this aim, but to include them would create difficulties, particularly in the number of schools used. Hence the sample is restricted to those pupils who are using the normal State provision, excluding Roman Catholics and constitutes as wide an ability range as possible within that system.

In order to assess the effect of parental encouragement on the achievement of the child, it is desirable to take the measure of achievement as late in the child's school career as possible. In fact, the advantageous effects may not be apparent in some children until after they have left school. However, it is also necessary that information on the child should be available at the school and that memories of his schooling are not too distant in the minds of the parent. Thus the age of the pupils taken in the sample was 16+ years. Although the choice of this age means that some of the children will no longer be at school, it is not too old for memories to be erased and it gives a useful check on

the veracity of answers to such a question as the age at which parents desire their children to leave school. Since all the pupils are in the same age group, it is possible to compare across the whole sample measures of their intelligence as indicated by 11+ marks and also within a school, measures of their achievement.

There were two main restrictions on the size of sample. A lower limit was created by the need for the sample to be as representative of the population as possible. The upper limit was that the sample should be small enough to enable a single interviewer to complete thirty minute interviews in all the homes in a period of approximately three months. The number of 200 as the total size of the sample was considered to satisfy both requirements.

Since one of the objects of the survey was to compare pupils who have improved with those who have deteriorated, the sample design was arranged to include 50 Improvers, 50 Deteriorators and 100 Random.

The sample was to include pupils from as wide a range of ability as possible and consequently it could not be drawn from one school. If boys and girls were to be included the Selective section of the sample must be drawn from both Grammar Schools.

No non-selective school was considered to have a representative range of parents on the socio-economic scale. It was found that by including seven schools, serving varying abilities and districts, a good spread of ability and background could be obtained. The schools in the survey were:-

School no.	Type	Sex	Entry (streams)	Catchment Area
1	Grammar	Boys	4	Whole Borough
2	Non-selective	Mixed	4	Mainly Private and good Council Property
3	Non-selective	Mixed	4	Council Property
4	Non-selective	Mixed	3	Older Council Property
5	Technical High	Mixed	4	Whole Borough
6	Grammar	Girls	4	Whole Borough
7	Non-selective	Mixed	2	Older Property

The size of sample drawn from the selective schools was in proportion to the entry to the selective schools. The size of sample from each non-selective school was in proportion to the size of entry to that school.

For the purposes of the proportions, the Technical School was taken as non-selective although it will be seen that its entry, whilst not including the highest V.R. scores, does not include the lowest scores in the intelligence range.

The schools in the Borough excluded from the survey were Private, Roman Catholic and Educationally Subnormal as mentioned above, together with two single sex non-selective and one mixed non-selective school.

In each school the sample was drawn in the following manner. The first year and third year positions of each pupil were taken and the degree of improvement or deterioration assessed. Equal numbers of greatest improvers and deteriorators were taken to constitute half the sample. The other half of the sample was obtained by taking random numbers from tables (Edwards 1960).

There were 17 cases in which an element of the sample occurred in both the random group and the group of improvers and deteriorators. This gave a total sample size of 183.

2. ITEMS IN THE ENVIRONMENT

Choice of Items.

The number of factors which could be included in the concept of parental encouragement is almost inexhaustible. The investigator, like the geologist, must sink a number of shafts at differing points and draw inferences for the whole field from readings at these points. The interview schedule was designed to take readings in three ways. Firstly, factual questions were asked, secondly, attitudes were determined and thirdly, assessments were made by the interviewer.

A list of desirable items was compiled with reference to the investigator's own observations and to the pertinent literature. Fraser (1959) had grouped the home conditions into Motivational, Emotional, Cultural and Material, and concentrated mainly on the last two groups. The same grouping was used in this investigation but in an attempt to determine further the effects of the first two groups, more items were included for the Motivational and Emotional aspects than for the Cultural and Material.

Items which were not relevant to the whole ability range of children were discarded. For instance, an item which deals with the parent's attitude to

homework would not be acceptable since some schools set homework for all pupils and some do not. Again, to ask all parents about their aspirations for a university place for their child would be unrealistic for parents of low intelligence children. The list was further pruned by subjecting the items to Cantril's criteria for questions. (1947) A final pruning and modifications were necessary after practice runs-through to ensure that the interview would not exceed half an hour, in genefal.

The items which remained are shown in the Parent Interview Schedule (Appendix VIII) and can be grouped as follows:-

1. Motivational.

Choosing child's career, desire for Further Education, Interest in education, interest in school visits, parents' early days.

2. Emotional.

This group was subdivided into a general emotional factor (EFI) and a factor which was designed to include aspects of communication (EFII). EFI included items on complete family, health, control, harmony, tidiness, own childhood and other relatives in the home.

EFII included time with father, shared interests, knowledge of parental role, ability to 'cope' and communication.

3. Cultural.

Library membership, magazines, own education, membership of organisations, lessons outside normal course, cultural assessment.

4. Material.

House and district, number of children.

Wording the Questions.

Care was taken to avoid ambiguity in the wording of questions and categorising of multiple choice replies. As the interviews were conducted by a single interviewer it was easier to ensure that a question meant the same to each interviewee than if several interviewers, or a postal questionnaire, had been used.

Open ended questions were included to facilitate the interviewer assessments.

Sequence of Questions.

It is essential for the interviewer to establish 'rapport' at the beginning of an interview. Consequently care was necessary in determining the sequence of questions. Many parents understood the purpose of the survey from the initial letter and

seemed comfortable in the interview situation. Other parents were suspicious or doubtful of their ability to help. However, most parents are only too happy to talk about their own children and consequently the early questions were chosen to enable them to do this. The initial question, dealing with the choice of career, coupled with an early opportunity to speak about their other children, proved to be a sufficient 'rapport' builder, the parent feeling immediately that here was something that he knew something about.

The order of questions was designed to provide a smoothly flowing two-way conversation running, in general, in reverse chronological order. The questions on which parents may be most sensitive, dealing with their own education (Wilmott and Young 1960) and health were separated and placed at points in the schedule where it was felt that the parent would be feeling most at ease to answer and where sufficient of the interview remained for parents to feel that it had been a pleasant experience.

Design of Schedule.

Many parents will be apprehensive if they are confronted by an interviewer flourishing a large official questionnaire. The schedule was designed

to be as inconspicuous as possible so that it did not detract from the conversational atmosphere. Questions and answers were placed side by side requiring only a ring round the appropriate code number of the answer. Space was left for additional comments.

3. THE INTERVIEW

1. Choice of Instrument.

The principal methods of gaining information on the parents and home circumstances in this form of enquiry are by (a) questions put to the child, (b) a questionnaire sent to the parents or (c) an interview with the parents.

To question the child would be relatively easy. By choosing a sample of children who were still at school, it would be possible to arrange interviews in the school and written answers, thus gaining the information in a short time. However, to use such an approach would be open to a number of objections. Primarily to question the child on his parents' opinions, without the parents' previous consent, would seem an unethical infringement of privacy. Secondly, the accuracy of these reported opinions would be suspect. Finally, the child may not be in possession of some of the information required.

The method of presenting a questionnaire to the parents has the advantage of requiring a short time to gain the information. However, the chances of gaining a representative response would be minimal. There would be inaccuracies due to misinterpretation of the questions and the answers, apart from the proportion of nil returns - which probably would be higher in the lower intelligence range.

To interview all the parents in the sample obviously has the great disadvantage of the long time that would be necessary to complete the operation. An interview lasting 30 minutes would be the optimum and if this were to take place in the parents' home, travelling time would be an additional factor. However, the advantages of such an approach are that the number of uncompleted schedules would be minimal; the interviewer is able to assess the correctness of replies and if necessary to help the interviewee to understand a question; and it enables the interviewer to make his own assessment of the home conditions. It was considered that for this enquiry the interview in the parents' home had overwhelming advantages over the first two methods.

The disadvantage of time could be overcome by employing a team of interviewers. However, if the maximum was to be gained from each home visit, it would be preferable to make a number of assessments. These would necessarily be subjective and consequently differences in grading would be at a minimum if only one interviewer was employed.

Hence it was decided that the instrument for gaining information should be the interview conducted by a single interviewer.

2. The Approach to Parents.

Initially permission to conduct the enquiry in the area was obtained from the Local Authority. Permission to interview parents of children from a particular school was gained from the headmaster who was shown a copy of the letter to be sent to parents (Appendix VII) The addresses of parents were supplied by the schools.

The interviews had to be conducted in the evenings, but although there is evidence that previous interviewers have found certain times inconvenient - often dependent on popular television programmes - no attempt was made to allow for this. It was thought that interviewing between 7 p.m. and 9.30 p.m. would be the most convenient.

The letter was sent to parents suggesting an approximate time and day when the interview could be conducted. Parents who wished to postpone, or refuse, the appointment were asked to telephone, or write to, the interviewer.

Four interviews were scheduled for each evening. It was anticipated that some interviews would exceed the half hour, but that this might be compensated for in any one evening by failure to contact some parents. For any evening the homes chosen were to be as close as possible to avoid loss of time in travelling.

The interview schedule was completed by the interviewer during the interview, occasional notes being made between visits. The schedules were checked, interviewer assessments completed and further notes added at the end of each evening.

Recording Information.

At the conclusion of the interviews the replies were coded and transferred to Cope-Chat cards.

4. MEASURES.

Two principal measures concerning the child were required. These will be termed Ability and Achievement. In this study they will have the meanings shown below.

1. Ability.

For the descriptive section of the enquiry it is required to compare factors of parental encouragement against the child's ability. The measure of ability taken is the overall score in the 11+ tests obtained from the Education Office. In the area considered children took a three stage test in 1961 consisting of Verbal Reasoning, English and Arithmetic. If a pupil scored a very low mark on the Verbal Reasoning test he was not entered for the English and Arithmetic tests. In these cases an estimate, based on the Verbal Reasoning mark, was used as the measure of ability.

2. Achievement.

Where pupils of roughly equal ability are concerned in one school the measure of their academic achievement may be taken as their score on some carefully designed test. Variations could be expected when different teachers had taken different members of the group. When pupils of very varied ability in different school environments are involved, no single test at the secondary age is likely to prove useful.

The measure of achievement used in this study is obtained from the pupil's performance in

school subjects as shown by his internal examination results and compared with his fellow pupils in that school.

The difficulties of obtaining a measure of achievement are very evident when the internal organisation of the shools is considered.

In some schools, children on entry are put into parallel streams but in others they are allocated to forms by performance in the 11+ tests. Setting occurs in some of the schools. There are secondary schools who reorganise their streams at 14+ into intending leavers and extended course pupils. One school provides grades in examinations, the others provide marks.

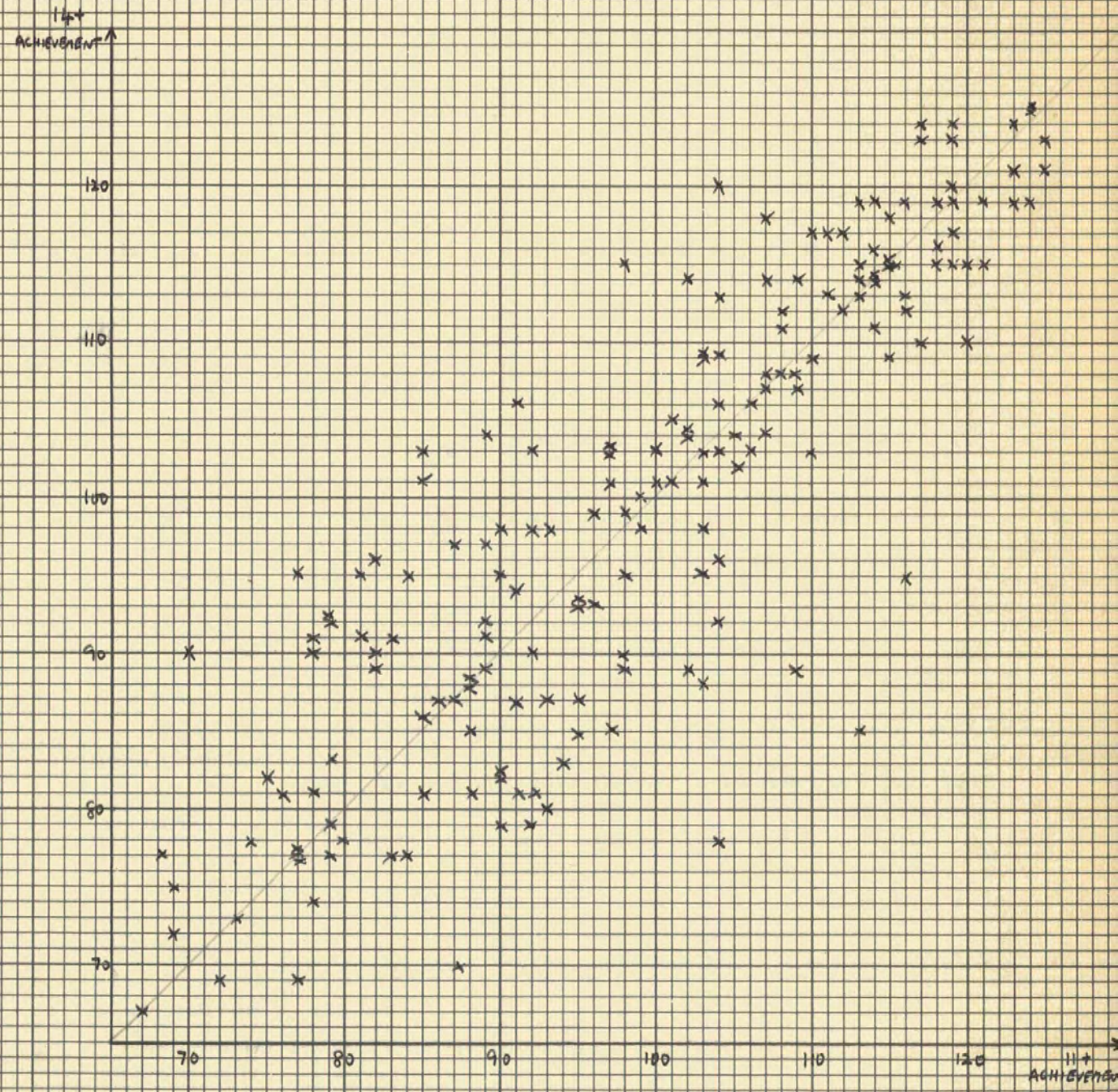
It is possible that a pupil may succeed under one system and fail under another. This contingency points to the danger of generalising if the results are obtained in a study of this nature in one school only.

In order that the measure of achievement may be made across the whole sample it was necessary to assume that the overall ability of pupils in a school remained constant. The measures were scaled on the Verbal Reasoning marks. For example, to obtain the

14+ achievement score for a pupil in school 1 the following procedure was adopted. The Verbal Reasoning (V.R.) scores on the 11+ test for the sample pupils from school 1 are put in rank order. At 14+ the rank of the pupil relative to the sample in school 1 is obtained from his internal school examination results. Reading from the 11+ list the pupil is given the mark corresponding to the rank at 14+. Thus if he is seventh in the sample in his 14+ examinations he is given the V.R. score corresponding to the seventh pupil in the sample in the 11+. This number is taken as his 14+ achievement score. No attempt is made to provide for misplacements on the 11+. According to the Crowther Report (Central Advisory Council 1959) 14% of pupils are found to have been misplaced by the selection process by the age of 15 years. Evidence for this, in this sample, may be seen in the 'double cigar' shape of the scatter diagram (Diagram I). The restriction on movement in the nodal zones provided by this method will tend to limit the differences which may occur in comparing factors of parental encouragement at different ages.

DIAGRAM I

SCATTER DIAGRAM FOR ACHIEVEMENT SCORES AT AGES 11+ AND 14+



Where achievement is required at the 11+ age (in Enquiry II) this is taken as the mean of the English and Arithmetic scores after each of these had been standardised to a mean of 100 and standard deviation of 15 for the sample.

3. Intelligence.

The measure of Intelligence will be taken as the V.R. score on the 11+ examination.

4. Improvement and Deterioration.

The proportion of Improvers (I) and Deteriorators (D) from each school was jointly proportional to the entry to selective and non-selective schools and the size of the school as stated on page 28.

The Is and Ds were determined by considering those pupils who had made the most improvement or deterioration in their rank on school examinations between the end of the first and third years of secondary education.

In Enquiry III two sub-sets of the sample were taken:

(a) To determine the first sub-set of able-achievers the results of two external examinations - the 11+ and 'O' level - were used. Achievement

was measured by ranking the pupils of the two selective schools on 'O' level scores. Each pupil was given a mark of 10 minus the grade achieved in each 'O' level subject taken and the total of these marks for each pupil was taken as his 'O' level score. Able-achievers were those pupils who had made the most significant improvement in rank from the 11+ to 'O' level.

(b) A further sub-set was created in Enquiry III of those pupils who had already left school and had had at least two jobs in the period since leaving school.

5. THE ENQUIRY

Enquiry I

The first enquiry was descriptive. The population was taken as the whole sample (183). The elements of the sample were arranged in seven groups according to the ability of the children. The individual items from the interview schedule were compared in these groups. Values of chi-squared and correlations were calculated for the items. A group factor was created from the items having 5% level of significance and this, together with the hypothetical group factors, was compared against Ability by means of correlation coefficients.

Enquiry II

The purpose of this enquiry was to search for factors of parental encouragement which affect the achievement of children in school subjects. This was attempted at two levels.

(a) The population taken was the whole sample. Correlations were obtained for individual items and hypothetical factors against Achievement at the 11+ and 14+ levels. As in the research of Fraser (1959) a search was made for items and factors which were related more closely with 14+ than 11+ Achievement.

(b) Previous research has shown that many factors of the home background which correlate positively with achievement are also closely associated with intelligence. In this enquiry, factors of parental encouragement are compared with the improvement or deterioration in the pupil's achievement irrespective of his position on the intelligence scale. The Improvers and Deteriorators in the sample were taken as the population. 'Students' 't' test (see p. 50) was used for a comparison of the means for the factors of parental encouragement.

Enquiry III

A search was made for predominant patterns of response in two sub-samples, using McQuitty's method of Agreement Analysis. The population for the first sub-set was composed of the parents of children in the selective schools who had made the most improvement up to 'O' level of the G.C.E. examination. Thus they were able pupils, as determined by the 11+ results, and improvers, as determined by their gain in rank between the 11+ and 'O' level. The population for the second sub-set was composed of the parents of those children who had had two or more jobs in the year since leaving school.

6. RESTRICTIONS ON GENERALISATION

The sample of children was drawn from seven State secondary schools which included the full range of Intelligence, with the exclusion of the educationally sub-normal. In the area, provision is made for the latter group in a special school which was not included in the seven schools for the sample. In addition, schools which provided for the education of Roman Catholic children were not included. The means and standard deviations of the 11+ test scores for the sample were comparable with the means and standard deviations for all children in the county. (p.55) The means are

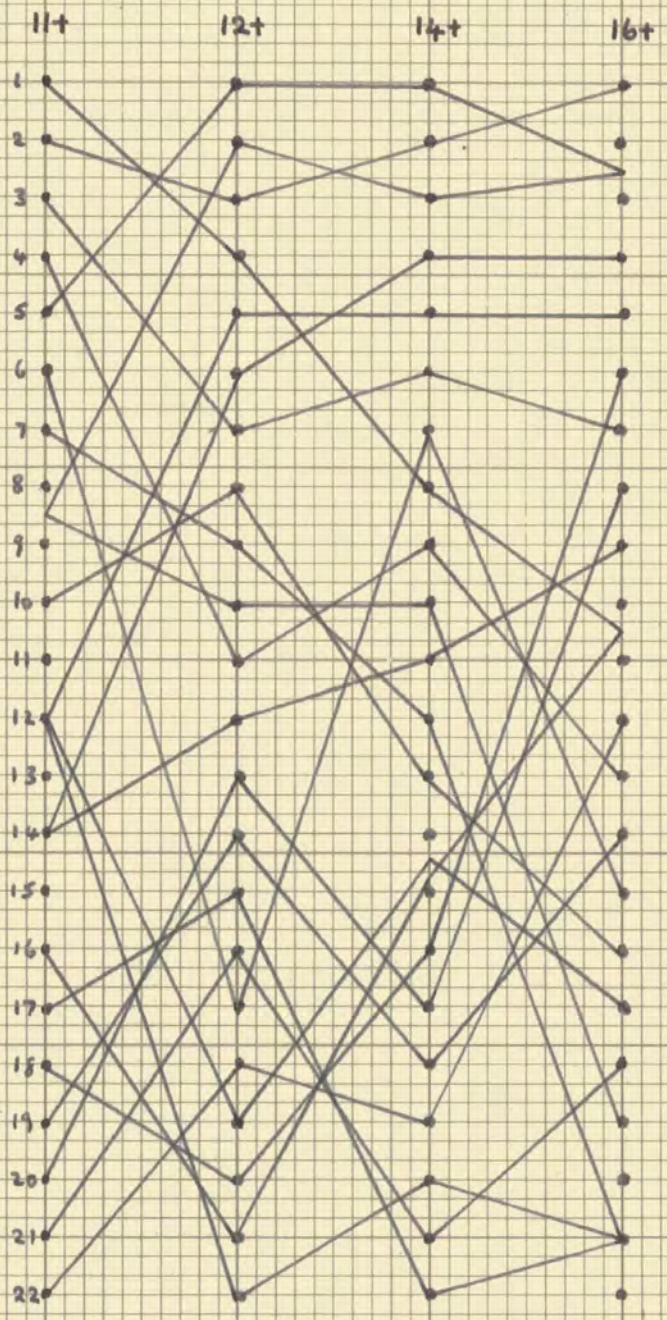
a little above the national average. The original sample size was slightly reduced as the 11+ results for seven of the children could not be traced.

When the children were ranked on internal school examination marks at the end of their first and third years in the secondary school many changes in rank were observed. Comparing these changes with those between 11+ rank and first year rank it was noticeable that many children fluctuated in rank - an improvement in rank from 11+ to first year being followed by a deterioration from first year to third year. (Diagram II). After allowing for the variations which are under investigation in this study and those due to the initial adjustment of pupils to their new schools, any remaining variations would throw doubt on the reliability of school examination results as a criterion of achievement. It is not possible to assess the reliability for all the schools in this study. However, taking as a further measure of scholastic achievement the results achieved by pupils in school 1 on the external examination of the General Certificate 'O' level, the correlations between the first year ranks and 'O' level ranks

DIAGRAM II

RANK DIFFERENCES AT FOURAGES FOR SAMPLE FROM ONE SCHOOL

(SCHOOL I)



and between the third year ranks and 'O' level ranks, provided justification for using school examination marks as a measure of scholastic achievement.

Although three parents refused to allow the interviewer into their homes, all the parents agreed to be interviewed. Consequently the replies may be taken as representative of the views of parents of secondary school children in the area of the study. Aspects of parental encouragement may vary from community to community with differences particularly apparent between rural areas and congested urban areas. The investigation was conducted in a town in the South West of England with a population of 73,000.

M E A S U R E M E N T

T E C H N I Q U E S

The main instrument of measurement was the parent interview schedule. Many of the replies were dichotomous but 3, 4 or 5 point scales were created where greater discrimination seemed desirable. For the descriptive section of the experiment a physical count was made of the responses, which had been transferred to Cope-Chat punched cards.

The measurements of pupils' ability by 11+ score, and achievement by school examination marks, were described in the Design of the Experiment (p.38). The achievement scores were obtained by scaling on the V.R. marks in each school.

The number of responses in each ability group for each item was compared with the expected distribution, on the hypothesis of no association, by the chi-squared test. These numbers were also expressed as percentages to facilitate comparisons.

Scores were given for the responses to each item of the schedule and the items grouped into hypothetical factors. (Appendix II). The correlations between each factor and ability or achievement were calculated by the Pearson formula for correlation of grouped data.

The level of significance for each correlation was found by reference to Student 't' tables, where 't' was obtained from the formula

$$t = \frac{r\sqrt{(n-2)}}{\sqrt{(1-r^2)}}$$

where r is the correlation coefficient and n is the number of pairs (Weatherburn 1949).

To compare the correlations in different populations - such as Improvers and Deteriorators - Fisher's transformation of r was obtained from tables and the difference in z values was compared with the standard error - calculated from

$$S.E. = \sqrt{\frac{1}{n_1-3} + \frac{1}{n_2-3}}$$

where n_1 and n_2 are the numbers of pairs in each population. (Weatherburn 1949).

Another comparison of correlations was required. For a given factor and population, changes occurred in the correlation between this factor with achievement at different ages. The level of significance of this shift was calculated by the t test developed by Hotelling, using the formula (Guildford 1965)

$$t = (r_1-r_2)\sqrt{\frac{(N-3)\ (1+r_3)}{2(1-r_1^2-r_2^2-r_3^2+2r_1r_2r_3)}}$$

where N is the population,

r_1, and r_2, are the correlations to be compared and

r_3 is the correlation between the two measures of achievement.

The differences in means on each factor for the Improvers and Deteriorators were calculated and Students 't' test used to establish the degree of significance.

The method of Agreement Analysis was used for the two small sub-samples in Enquiry III. Developed by McQuitty (1956) this technique gives patterns of response and classification of groups without the use of allocating numerical values to the data. A full description, with illustrative example, is given in McQuitty (1961). Briefly, a matrix of responses, in this case dichotomous, on a battery of 53 items for each individual, is completed. An agreement matrix is compiled entering in each cell the number of items on which a pair of subjects agree. Making a correction for agreement by chance, a corrected agreement score is obtained. The pair of subjects having the highest corrected agreement score form a tentative species. The corrected agreement score for this species with each subject is added to the matrix.

The next highest agreement score is sought and this process is continued producing species and genera.

S T A T E M E N T

O F

R E S U L T S

ENQUIRY 1.

In this enquiry the items of the parent interview schedule were taken against the Ability of the child and the pattern of home background described. The population was the whole sample (183).

1. Ability.

The 11+ results of the sample were sought. The results of 7 of the sample could not be traced and consequently the sample size was reduced to 176. Pupils with a very low score on the Verbal Reasoning (V.R.) test did not proceed to the English and Arithmetic Tests. Of the sample 151 sat all three tests and produced correlations between tests as shown:-

Correlation between Verbal Reasoning and English = ·87

Correlation between Verbal Reasoning and Arithmetic = ·81

The tests used in the area were:-

Moray House Verbal Reasoning Test	60
Moray House English Test	28
Moray House Arithmetic Test	28

Table I gives the means for the sample and for all pupils taking the test in the area (All in area) and the standard deviation for the sample on each test.

Table I. The 11+ Tests.

Test	Means		Standard deviation
	Sample	All in area	Sample
V.R.	106	104·6	14·5
English	104	106·4	16·0
Arithmetic	106	107·2	16·0

A simple estimate of the total 11+ score was made for those pupils who had sat only the V.R. test by multiplying V.R. score by 3.

The sample was divided into seven Ability groups on these 11+ scores as shown in Table II and these groups were taken to facilitate comparisons of parental factors. Group 1 consisted of lower ability children and Group 7 of higher ability.

Table II Ability Grouping

Group	Range of Scores	No. in Group	% of Sample	Mean	s.d.
1	220-244	9	5.1	233·3	7·2
2	245-269	27	15·3	258·6	6·3
3	270-294	25	14·2	283·4	6·7
4	295-319	30	17·0	305·6	7·7
5	320-344	34	19·3	332·6	7·8
6	345-361	30	17·0	358·0	7·5
7	370-394	21	11·9	381·3	7·9

The differences in intake between the schools are highlighted in Table III

Table III Ability Distribution of Groups against Schools.

		School No. (see p28)							
		1	2	3	4	5	6	7	Total
Ability Group	1	-	1	2	5	-	-	1	9
	2	-	7	11	7	-	-	2	27
	3	-	7	11	3	-	-	4	25
	4	-	16	6	4	-	-	4	30
	5	-	8	4	8	10	-	4	34
	6	12	-	1	1	6	10	-	30
	7	10	-	-	-	2	9	-	21
Total		22	39	35	28	18	19	15	176

School 5 is seen to have a few very able pupils and provides a bridge between the selective and non-selective schools. Ability group 5 will be of particular interest as it must contain a number of pupils in the border line area of the 11+ who failed to achieve a grammar school place.

Although it is not the purpose of this enquiry to compare schools, the distribution given in Table III is an indication of the discrepancies likely if a 'representative' sample is sought from just one school. The mean V.R. score for elements of the

Sample from each school emphasises this (Table IV)

Table IV Ability in the schools

School	1	2	3	4	5	6	7
mean for V.R.	121·5	100·7	95·7	94·2	117·1	124·1	101·5
s.d. for V.R.	6·1	8·5	8·4	12·3	4·2	5·4	9·9

Incomplete Families

In 19 cases the family was considered incomplete. These were where the child had:-

No Father - 10

No Mother - 1

Divorced or separated parents - 8

These cases were spread across the whole ability range but Groups 2 and 5 held the majority of cases (6 and 5 respectively).

In the interview schedule 24 items proved significant at, or better than, the 5% level of significance, against the seven Ability Groups. The full list of totals is given in the Appendix. In this section only the significant items are detailed. Percentages are given to the nearest integer.

1. Still at school.

The opportunities for staying at school are more tempting in some schools than in others. Some schools are not able to provide staff to cater adequately for the needs of those who wish to remain at school.

By contrast, other schools request an undertaking on the part of the parents that the child will remain in the school beyond the statutory age.

Table V

Q. Is the child still at school?

		Still at school	% age of group	% age of sample
Ability Group	1	-	0%	
	2	6	22%	
	3	8	32%	
	4	12	40%	
	5	23	68%	
	6	26	87%	
	7	21	100%	
Total		96		54·4%

chi-squared = 53·6 d.f. = 2 $p < .001$

The relationship between Ability and staying on at school is very close - as would be expected - giving a correlation of ·588.

2. Clear ideas on Career.

Table VI

Q. Has this child clear ideas on the career he hopes to follow?

	Clear ideas	
Group	N.	%
1	7	78%
2	18	67%
3	18	72%
4	21	70%
5	25	74%
6	11	37%
7	13	62%

chi-squared = 12·91 d.f. = 4 $p < \cdot 05$

For a child in the selective schools, starting a career may not be as imminent as in the other schools. A firm wish to pursue a particular sixth form course was taken as a 'clear idea' but there was some hesitancy on the part of selective school children to make a decision prematurely.

3. School leaving age preferred.

As with the first item the age at which a parent wishes his child to leave school depends on a number of external circumstances. If the child attends a

school where the majority leave at 16 years of age, the probability of the parent giving this age is greater than for a child of equal ability in another school. Thus we would expect replies to the question to reflect initially the division produced by the 11+ examination. As an indication of parental aspirations for the child the question is more meaningfully discriminating between the leaving ages of 15 or 16, 17. In the non-selective schools there will in general be opportunities for children to remain beyond the statutory age.

Table VII

Q3 At what age would you prefer him to leave school?

Leaving age preferred:	18+		16,17		15 or less	
Group	N	%	N.	%	N.	%
1	-	0%	4	44%	5	55%
2	1	4%	8	30%	18	67%
3	-	0%	16	64%	9	36%
4	1	3%	18	60%	11	37%
5	5	15%	23	68%	4	12%
6	17	57%	10	33%	3	10%
7	16	76%	5	24%	-	0%

chi-squared = 26·15 d.f. = 2 $p < .001$.

There are 124 parents (71%) who wish their

child to stay at school beyond the age of 15 years. But Table V revealed that only 96 children /55%) were at school beyond that age.

4. Reasons for preferred age of leaving

The many possible reasons for children leaving school were condensed into the five main groupings of: parents want maximum education for child; child wants to leave then; friends leaving then; family need income; end of normal course. The number of replies in two categories - family need income and friends leaving then - were small and consequently were absorbed in the 'end of normal course' and 'child wants then' respectively.

Table VIII

Q4. Why do you prefer this age?

	Parents want max. education		End of normal course		Child wants then.	
1	3	33%	3	33%	3	33%
2	5	19%	13	48%	9	33%
3	5	20%	10	40%	10	40%
4	13	43%	7	23%	10	33%
5	16	47%	7	21%	11	32%
6	16	53%	7	23%	7	23%
7	15	71%	2	10%	4	19%

chi-squared = 18·66 d.f. = 3 $p < \cdot 001$.

In seeking measures of parental encouragement this item provides a useful parameter of the views of the value of education. Parents wishing their child to receive maximum education are making a positive assessment, whereas to consider leaving age as giving end of normal course is an acceptance of the educational provision and for the decision to be left to the child is a negative contribution.

5. Size of family.

The expectation is that the larger a family is the lower will be the ability of the child in that family. Fraser (1959) found a correlation of -·404 for this comparison. The parents were asked the ages of their children and, of course, there were many cases where the eldest children were no longer in the family group. However, the measure taken was purely the number of children that the parents had had, irrespective of their age and whether they were still living at home.

The correlation was -·298 which showed a significant relationship between size of family and ability.

Table IX

	No. of Siblings							
	0	1	2	3	4	5	6	more than 6
Group 1	-	3	2	1	1	-	1	1
2	1	7	4	3	2	1	5	4
3	2	5	8	2	4	2	1	1
4	4	8	11	2	1	4	-	-
5	4	15	9	-	3	1	1	1
6	2	10	7	8	1	1	-	1
7	3	8	5	4	-	1	-	-
Total	16	56	46	20	12	10	8	8

chi-squared = 11·17 d.f. = 4 $p < \cdot 05$

6 Advice on Further Education.

The parent was given the opportunity to take the widest interpretation of Further Education. Thus for parents of children remaining at school until 18, further education would mean, in general, higher education at a University, College of Advanced Technology, Training or other College. The parent of a child leaving earlier may wish his child to enter a full-time course at a Technical College or Art College or do a part-time vocational or non-vocational course. The number desiring evening classes or part-time non-vocational courses

was small and the indication of parents desire for his child's further education was taken as whether he wished the child to have full-time, part-time or no further education.

Table X.

Q6. Would you advise your child to have any further education?

	Full time		Part-time		None	
Group	N	%	N	%	N	%
1	2	22	4	45	3	33
2	4	15	11	41	12	44
3	3	12	14	56	8	32
4	9	30	16	53	5	17
5	17	50	13	38	4	12
6	20	67	8	27	2	7
7	15	71	5	24	1	5
Total	70	40%	71	40%	35	20%

chi-squared = 39·49 d.f. = 4 $p < .001$.

7. Education of the Parents.

The parents came from very varied backgrounds and had been educated in times when interest in education was less than at present.

There were parents who came from remote rural communities and had managed to relieve themselves of full-time school education at the age of 13 or earlier. There were others who had come from large

cities or obviously from families where a high store was put on education.

Not only were the backgrounds varied. There was also a large time span covering the years when the oldest and youngest of these parents had been at school. The parent whose oldest child is 37 years must have received part of his education in the period immediately following the first World War, and the parent for whom the sample child is the eldest, probably received his education during the second World War.

Table XI.

Q. 7. At what age did you finish full-time education?

	Both educated over age 15.		Mother only		Father only		Neither	
Group	N	%	N	%	N	%	N	%
1	-	0	3	33	1	11	5	56
2	2	7	4	15	4	15	21	78
3	2	8	3	12	5	20	19	76
4	3	10	10	33	3	10	20	67
5	5	15	10	29	12	35	17	50
6	11	37	18	60	13	43	10	33
7	11	52	14	67	14	67	4	19
Total	34	19%	62	35%	52	29%	96	55%

Mother chi-squared = 26·00 d.f. = 3 p<·001
Father chi-squared = 19·83 d.f. = 2 p<·001

The correlation between mother's education over 15 and ability of child is ·340 and between father's education after 15 and ability of child is ·348. Both these correlations are significant.

A comparison of the desire for further education against the parent's education beyond 15 produced a correlation of ·34.

The questionnaire was more discriminating than the dichotomy of 'education over or under 15 years'. Eight Mothers and eight Fathers had received education to the age of 18 or older. Eight Mothers and three Fathers had finished school at 13 years or younger. In this group one mother had had no formal education, owing to rheumatic fever.

8. Parents stress need to do well.

There was a glow of justified pride in the parents who were able to say that it had never been necessary to impress upon their child the need to do well at school. Whether there existed a special relationship between parent and child, or the attitude was due to early training or the child had an inborn characteristic, it is not possible to say, but for most parents the existence of this attribute in their child seemed to epitomise success.

For many parents the indications were that this issue was one over which many battles had been fought and, in their view, lost. There were parents who tried to impress the interviewer with their replies to the question but attempts were made to reduce this 'halo' effect by adjusting their replies where appropriate.

Table XII

Q.14. Did you try to impress upon him the need to do well at school?

Group	Not necessary N	Not necessary %	Yes N	Yes %	No N	No %
1	-	0	6	67	3	33
2	1	4	21	78	5	19
3	6	24	13	52	6	24
4	3	10	23	77	4	13
5	11	32	18	53	5	15
6	8	27	19	63	3	10
7	9	43	12	57	-	0
Total	38	22	112	63	26	15

chi-squared = 13·25 d.f. = 2 $p < \cdot 005$

The item is very significantly related to ability and gave a correlation of ·311.

9. Membership of Uniformed Organisation.

A large proportion of the sample children (73%) were, or had been, members of some youth organisation. The distinction was made between 'uniformed' organisations - scouts, guides, and including organisations affiliated to churches - and non-uniformed as say, the local youth club.

Table XIII

Q. 16. Was he ever a member of an organisation?

	Yes		Uniformed	
Group	N	%	N	%
1	5	56	3	33
2	24	89	11	41
3	17	68	10	40
4	18	60	14	47
5	24	70	17	50
6	26	87	19	63
7	15	71	13	62
Total	129	73	87	49

Yes/No chi-squared = 4·21 d.f.= 3 $p > .05$
Unif/Non chi-squared = 6.65 d.f.= 2 $p < .05$

Of itself, membership of an organisation was not significant but membership of a uniformed organisation is significant at the 5% level.

10 Library Membership

Here it is of interest to know, not only whether the child is a member of a library but also, the encouragement he may have received from his parents to join a library. The indication of the parents' encouragement is taken as the age of the child on joining. Thus it is assumed that an encouraging parent will have ensured that his child entered the library at an early age. He will also have encouraged the child to use the library regularly.

Table XIV

Q.17(a) Is he a member of the (public) library?

	Yes		No	
Group	N	%	N	%
1	3	33	6	67
2	11	41	16	59
3	14	56	11	44
4	22	73	8	27
5	26	76	8	24
6	22	73	8	27
7	17	81	4	19
Total	115	65	61	35

chi-squared = 17·54 d.f. = 3 $p < \cdot 001$

Table XV

Q.17.(b) At what age did he join?

	Under 8		8-11 yrs.		over 11.	
Group	N	%	N	%	N	%
1	2	22	-	0	1	11
2	3	11	2	7	6	22
3	4	16	5	20	5	20
4	6	20	9	30	7	23
5	8	23	10	29	8	23
6	12	40	7	23	3	10
7	10	48	6	29	1	5
Total	45	26	39	22	31	18

chi-squared = 6·07 d.f. = 2 p<·05

Table XVI

Q. 17(c) Does he use the library often?

	Yes		No	
Group	N	%	N	%
1	2	22	7	78
2	7	26	20	74
3	7	28	18	72
4	8	27	22	73
5	10	29	24	71
6	17	56	13	44
7	11	52	10	48
Total	62	35	114	65

chi-quared = 10·57 d.f. = 2 p<·01

11. Extra Lessons.

There are a variety of activities outside the normal provision in education of which the parent can avail himself for his child. Some of these, such as violin and elocution lessons may be considered to have social overtones. But whether it is extra mathematics lessons or tennis coaching it has necessitated the parent making some effort. A surprisingly large number, 55 (31%), of the children had had some form of extra lessons.

Table XVII.

Q.19. Has he had any lessons outside the normal school course? (piano etc.)

	Yes	
Group	N	%
1	1	11
2	3	11
3	7	28
4	10	33
5	9	26
6	12	40
7	13	62
Total	55	31

chi-squared = 12·33 d.f. = 2 $p < \cdot 005$

The largest proportions are in Groups 6 and 7 with Group 5 diverging from any linear pattern. The most popular lessons were piano (19), violin (10) and elocution (9).

12. Child attended school before age of 5 years.

In the area of this study there are no State nursery schools, but there is a limited provision for children to attend school under the age of five years. An introduction to schooling through a play group was acceptable in this definition. Whether a school will accept a child prior to his fifth birthday in many cases is dependent on the size of class.

Table XVIII

Q.20. Did he go to any school before the age of 5 years?

	Yes	
Group	N	%
1	1	11
2	7	26
3	4	16
4	16	53
5	12	35
6	13	43
7	7	33
Total	60	34

chi-squared = 11·49 d.f. = 3 $p < .01$.

Whether a child enters school before the age of five has been shown to have some bearing on his future performance. (Central Advisory Council 1967).

A parent aware of this advantage may make efforts to start the child at school before the age of 5 years.

13. Stories.

The influence of the early years on the intellectual development of the child is well established. From the child's earliest days we picture the mother talking to the child and as the child reaches an age of understanding, stories being told and pictures shown. The Newsoms' (1963) indicated that this did not happen in all homes and the evidence of Table XIX bears this out showing the less able children to be the ones who were deprived.

Traditionally, story telling is associated with the mother but, in a search for the possible influence of the father and the part he takes in the upbringing of the children, the question was extended to enquire who was mainly responsible.

The number of homes in which stories are not read is very small in some groups and consequently

considerable grouping of cells was necessary before the chi-squared test could be applied. The correlation of ·28 is significant.

Table XIX.

Q.21. Before he went to school did anyone spend time reading him stories?

	Yes	
Group	N	%
1	5	56
2	19	70
3	19	76
4	30	100
5	31	91
6	29	97
7	19	90
Total	152	86

chi-squared = 12.43 d.f. = 1 $p < \cdot 001$.

14. Health of Parents.

The health of each parent was recorded on a four point scale from excellent to poor. These classifications were condensed to two, Good and not-Good, on the Cope-Chat cards.

Table XX.

Q28. How would you describe your own health, and your husband's?

	G O O D			
	Mother		Father	
Group	N	%	N	%
1	5	55	7	77
2	17	63	20	74
3	18	72	21	84
4	21	70	23	76
5	27	80	17	50
6	28	93	25	83
7	16	76	17	81
Total	132	75	130	74

Mother chi-squared = 7·65 d.f.= 2 $p < .05$

Father chi-squared = 12·66 d.f. = 3 $p < .01$

15. Parent's Schooldays.

The parents were encouraged to speak briefly of their own schooldays to ascertain whether it had been a happy or unhappy experience. The disguised form of the question called for interviewer interpretation of replies. In a few cases, parents who went on to further education, were glad to leave school because of the prospect ahead, - although the indication was that their schooldays had been happy. This was interpreted as not glad to leave school.

Table XXI

Q.30. Were you glad to leave school?

Group	N	No %
1	3	33
2	9	33
3	9	36
4	9	30
5	15	44
6	17	57
7	13	62
Total	75	43

chi-squared = 8·97 d.f. = 3 $p < .05$.

16. Type of House.

In the area of the study there are three large estates of Council property. A distinction was sought between those who were in houses provided by the Council and those who were in their own homes. In the private sector the classifications were detached, semi-detached and terraced house.

Many of the sample, 100 (57%) were housed in Council property. This large proportion arose from the choice of secondary schools for the sample, three of the non-selective schools having large sections of council property in their catchment areas.

Table XXII

A.1. Type of House.

Group	Detached N	%	Semi-detached N	%	Terrace N	%	Council N	%
1	_	0	_	0	1	11	8	89
2	1	4	4	15	2	7	20	74
3	1	4	2	8	2	8	20	80
4	-	0	8	27	6	20	16	53
5	1	3	9	26	2	6	22	65
6	3	10	17	57	3	10	7	23
7	3	14	7	33	4	19	7	33
Total	9	5	47	27	20	11	100	57

chi-squared = 30·95 d.f. = 3 $p < \cdot 001$

There is a significant relation between the type of house and the ability of the child. Giving scores on a linear scale to the categories stated yields a correlation of ·380 for this item against the ability groups.

17. District.

The property in the area is very mixed. It is not uncommon for an expensive house to appear in the grounds of old Regency property which has been converted into flats and, on the other hand, a small neat Council development may be adjacent to a prosperous estate of privately owned semi-detached houses. A child may be influenced by the district

in which he lives as distinct from his individual dwelling and consequently an assessment of this was made on the predominant housing in the neighbourhood of each home.

Table XXIII.

A.2. District.

	Estate				Individual			
	Private		Council		Good		Poor	
Group	N	%	N	%	N	%	N	%
1	-	0	8	89	-	0	1	11
2	2	7	20	74	4	15	1	4
3	1	4	18	72	3	12	3	12
4	6	20	17	57	1	3	6	20
5	8	23	19	56	5	15	2	6
6	10	33	8	27	9	30	3	10
7	6	29	8	38	5	24	2	10
Total	33	19	98	56	27	15	18	10

chi-squared = 23·22 d.f. = 3 $p < .001$.

18. Culture.

An assessment of the cultural level of the home was made by the interviewer on a three point scale. Such items as evidence of book reading, newspapers, musical instruments, type of pictures, decoration were taken into account.

However liberally 'culture' may be interpreted the higher ability groups would appear to have a monopoly. In addition to gaining pleasure from these

cultural activities the higher ability groups seem to make more time available to indulge in them.

Table XXIV.

A.3. Culture in the Home.

	Good		Average		Poor	
Group	N	%	N	%	N	%
1	1	11	3	33	5	56
2	3	11	12	44	12	44
3	-	0	17	68	8	32
4	5	17	17	57	8	27
5	8	23	19	56	7	21
6	10	33	16	53	4	13
7	9	43	9	43	3	14
Total	36	20	93	53	47	27

chi-squared = 12·45 d.f. = 2 $p < \cdot 005$

19. Tidiness.

It is possible that this apparent ability of the parents of the more able groups to be able to 'make time' accounts for the better state of repair and tidiness of their homes. The assessment was made by the interviewer looking at the external appearance of the house - its decorative condition and the garden - and the general impression gained inside the house. Allowances were made for the time

of the visit and other factors which may mean that things were abnormal.

Table XXV.

A.6. Tidiness.

Group	Very tidy N	%	Tidy N	%	Some Untidiness N	%	Very untidy N	%
1	1	11	5	56	2	22	1	11
2	-	0	15	56	11	41	1	4
3	3	12	13	52	4	16	5	20
4	6	20	17	57	7	23	-	0
5	9	26	19	56	4	12	2	6
6	10	33	15	50	4	13	1	3
7	3	14	11	52	6	29	1	5
Total	32	18	95	54	38	22	11	6

chi=squared = 6·30 d.f. = 2 $p < .05$

There was overwhelming evidence that great differences existed between the standards of different parents. Some families took a pride in the appearance of the house, the garden being neat and well stocked, the furniture and curtains and walls clear and bric-a-brac well cared for. This contrasted violently with other homes where an unkept garden and a broken window pane would greet the interviewer. Inside, a dingy hall with no light would lead to a living room which contained little room for living. Piles of clothes,

unwashed, could be seen in corners and on every piece of furniture. There may be a young child trying to sleep somewhere in the room. The final indignity had been suffered as was evidenced by an aerial wire leading to no television set.

20. Attitude to Education.

Wiseman (1964) had intimated the need to distinguish between the actively hostile parent and the parent with sheer inability to cope. The attitude to education was assessed on a five point scale: (1) active to improve (2) sympathetic, (3) passive acceptance, (4) uninterested and (5) actively hostile.

Table XXVI.

A.9. Attitude to Education.

	(1)		(2)		(3)		(4)		(5)	
Group	N	%	N	%	N	%	N	%	N	%
1	2	22	3	33	2	22	-	0	2	22
2	1	4	8	30	9	33	7	26	2	7
3	-	0	9	36	7	28	6	24	3	12
4	6	20	10	33	7	23	6	20	1	3
5	7	21	15	44	7	21	2	6	3	9
6	8	27	13	43	6	20	2	7	1	3
7	6	29	9	43	6	29	-	0	-	0
Total	30	17	67	38	44	25	23	13	12	7

chi-squared = 13·90 d.f. = 3 $p < \cdot 005$

Insignificant Items.

Nineteen items on the schedule did not reach the 5% level of significance as shown by their chi-squared values in Table XXVII.

Table XXVII.

Items which were not 5% significant	chi-squared	d.f.
Q.2. Career discussed with parents	3·88	4
Q.8. Member of P.T.A.	·89	2
Q.9. Visits to school	·04	5
Q.10. Who used to visit?	4·00	4
Q.11. Parents attend sports etc.	3·12	3
Q.13. Child talks of school	5·11	4
Q.15. (a) Parents restrict watching T.V.	2.97	3
Q.15.(b) Parents restrict choice of friends.	2·18	2
Q.16. Membership of youth organisation.	4.21	3
Q.18. Child takes magazine	8.48	4
Q.22. Parents seek advice	2.39	3
Q.23. Relatives living in	2·10	2
Q.24. Previous experience with children	3.49	3

	chi-squared	d.f.
Q.25. Family shared interests	5·77	4
Q.26. Interests father-child	1·39	5
Q.29. Parents childhood	4.77	2
A.4. Attitude to Interview	5·11	4
A.5. Harmony in home	5·39	4
A.7. Involvement of father	3·34	4

Q.22. Sources of Advice in Pre-School Years.

The question was designed to determine sources which influenced the parents in the early upbringing of their child. The distinction was made in the Cope-Chat analysis between external professional sources - doctor, health visitor, priest, radio/TV, books or magazines - and own experience, relatives or neighbours and friends. To ease the flow of the interview the question was rephrased to allow the parent to name any sources without regard to order or number.

Table XXVIII gives the numbers of parents mentioning each source.

Table XXVIII.

Sources of Advice in Pre-School Years.

Source	
Own Experience	167
Relative	65
Health visitor, clinic	37
Doctor	21
Books	19
Neighbours, friends	14
Magazines	5
Religious (Priest, organisation)	5
Radio, and/or TV	2

Q.26 and Q.27. Shared Interests.

The main grouping of interests shared by the family was as follows:-

Outings (43), Housecraft (20), Reading or discussion (19), Sport or dancing (16), gardening (13), music (13) church (6), television (5).

For interests shared between father and child we have:

Sport (31), Housecraft or gardening (17), Car or motor cycle (16), Discussions (9), Music (7), photography (5).

The main interests classified as cultural were:- amateur dramatics, classical records, history, discussions, politics, radio and model engineering, microscopy and educational visits.

OPEN ENDED QUESTIONS.

Changes in Child's Upbringing.

Q.31. If you had the task of bringing up this child again, are there any changes you would make?

The majority of parents (105) were satisfied with the manner in which they had reared their child. However, on hindsight, 78 parents would have made changes. These changes concerned mainly emotional aspects of discipline. Twenty-four parents would be stricter, but eighteen would show more affection and spend more time with the child, and three parents would worry less about the child's early upbringing.

Twenty-seven parents mentioned changes concerning the child's education. Twelve parents would maintain a stricter control on their child's education. Fifteen parents would have exercised greater care in choice of their child's school - five of them particularly mentioning boarding school.

Parents compare education.

Q.32. What have been the main differences between your own and your child's education?

Many parents (53) recognise the greater opportunities available in education to-day, and in addition ten mentioned increased facilities for sports and school journeys. Forty-one parents considered that the subjects and their content were now more advanced and nineteen mentioned the changes in methods stating a wish to understand them.

Teachers were mentioned by thirty-four parents. Four parents considered that teachers now lacked devotion but fifteen found teachers more approachable and five stated that more interest was shown in the child.

Twenty-four parents found schools much less strict now.

Q.33. What should education provide?

The final open-ended question given to the parents enabled them to express their own views on education and provided material on which the interviewee's attitude to education could be assessed. Very few parents (14) had no views to express. Although the replies were extremely varied, the points mentioned could be grouped under six main headings. These groups, with number of cases

mentioning them given in parenthesis, are set out below.

Personality (92). Fifty-one parents thought of school as providing the basis for a happy life and sixteen wished to see the school helping to form character and giving confidence. Creating the desire to learn was mentioned in twenty-two cases.

A job (68). Thirty-six of the parents considered that schooling should lead immediately to a job whereas thirty-two hoped that schooling would provide the necessary qualifications.

Knowledge (32). Current affairs were given by twenty parents, the three Rs by six and academic knowledge by six parents.

Within School (19). To be happy at school (5 cases) and twelve parents wanted more sport at school.

Socialisation (17). - leading to good citizenship was given by six parents.

Parental Factors.

In attempting to define parental encouragement, four main subdivisions are suggested. They are the Motivational, Emotional, Cultural and Material aspects. The items of the schedules were fitted hypothetically into these groups. Fraser (1959)

had laid particular emphasis on the Material and Cultural aspects and their more factual nature should lead to reliable measures. The attempt was made in this study to investigate more closely aspects of the Motivational and Emotional factors. A further subdivision was made in the emotional context giving five factors in all. The correlation with V.R. score, the mean, standard deviation (s.d.), maximum and minimum individual scores are given for each factor in Table XXIX. The factors were used for the comparisons in Enquiry II.

Motivational Factor.

A factor was created consisting of:-

(a) Choice of Career (Questions 1, 2).

(b) Interest in Education (Questions 3, 4, 6, 20, A.4 and A.9).

(c) Interest in Visiting School (Questions 8, 9, 10, 11).

(d) Early days of the child (Question 21).

Scores were given for each item as shown in Appendix II. This produced a scale of 32. The total for each case was taken as their Motivational Score (M.F.). The factor contained seven items which were significant at the 5% level.

Emotional Factor.

The emotional factor was divided into two elements - a hypothetical general factor, E.F.I. and an element biased towards aspects of communication between home, child and school, E.F.II.

(a) Emotional Factor I.

This consisted of the items:

(1) Complete Family

(2) Health of parents (Q.28)

(3) Control exercised (Q. 14 and Q.15)

(4) Parents own childhood (Q.29)

(5) Other relatives in the home (Q.23)

(6) Harmony in the home (A.5)

(7) Tidiness (A.6).

The scale for this factor was 22.

(b) Emotional Factor II (E.F.II).

The items in this factor were:

(1) Knowledge of parental role (Q. 22 and Q. 24)

(2) Time with father (Q.26 and Q. 27, A. 7)

(3) Shared interests and communications (Qs. 12, 13, 25).

(4) Ability of parents to cope with child (A.8)

The scale for this factor was 20.

Cultural Factor (C.F.)

This factor was composed of the items:

(1) Library membership (q.17)

(2) Magazines (Q.18)

(3) Organisation membership (Q.16)

(4) Parents own education (Qs. 7 and 30)

(5) Lessons outside the normal school course (Q.19)

(6) Culture in the home (A.3)

The scale for this factor was 19.

Material Factor (M.F.)

This factor consisted of three items:

(1) Type of House (A.1.)

(2) District (A.2.)

(3) No. of children (Q.5)

The scale for this item was 9.

Total Parental Factor. (T.P.F.)

The total score from the grouped factors for each element of the sample was taken as its Total Parental Factor Score.

Factor from Significant Items (S.P.F.)

Finally, a factor was created which consisted only of those items which had 5% significance in the previous analysis. This consisted of 24 items. The correlation of ·586 is highly significant.

Table XXIX.

Relationship between V.R. and Parental Factors.

Parent Factor	Correlation with V.R.	Mean	s.d.	Max.	Min.
Motivational	·331	18·3	6.6	32	3
Emotional I	·286	15·6	3·3	21	7
Emotional II	·133	11·1	3·5	20	1
Cultural	·455	8·3	4·6	19	0
Material	·452	3·5	2·1	8	1
Total P.F.	·389	56·6	15·6	91	20
Significant P.F.	·586	23·7	8·7	38	-2·

Enquiry II.

If parental encouragement is to affect the achievement of the child in a secondary school, we would expect a higher correlation between parental encouragement and achievement later in the school career than at the beginning. In this enquiry the parental factors were considered. Their scores were correlated against the Intelligence and Achievement of the children.

Table XXX

Correlations of Parental Factors against Intelligence and Achievement.

Factor	Intelligence	Achievement		
	V.R.	11+	12+	14+
Motivational	·331	·292	·347	·410
Emotional I	·286	·242	·290	·388
Emotional II	·133	·133	·171	·229
Cultural	·455	·453	.446	.469
Material	·452	·381	·372	·380
Total P.F.	·389	·384	·432	·500
Significant P.F.	·586	·568	·578	·657

The measure of Achievement at 11+ is taken as the average of corrected Arithmetic and English scores on the 11+ tests.

For this population (176) a correlation of ·147 or greater is considered significant at the 5%

level. Thus all the factors apart from Emotional II are related significantly with Ability. There is a significant shift in correlation from age 11+ to 14+ for all factors except the Cultural and Material.

Improvers and Deteriorators.

The first enquiry indicated the close relationship between parental encouragement and ability. These overtones were still present in the first part of Enquiry II and to avoid them the section of the sample composed of Improvers and Deteriorators was studied. The measure of improvement or deterioration was taken independently of the position that the pupil held on the scale of ability. The mean Verbal Reasoning Scores for Improvers and Deteriorators were 105·0 and 106·0 respectively. For the 14+ mark scaled on the V.R. score, these means became 110·6 and 101·9 respectively. Thus any significant factor obtained in this enquiry should be one which relates to improvement or deterioration in the secondary school.

Emotional Factor II, which consisted of items: Knowledge of parental role, Time with father, Shared interests and communications and Ability of parents to cope with child was the only single factor to be significant at the 5% level. The total

Parental Factor is significant at the 1% level and the Significant Parental Factor at 5%.

A comparison of the means on the grouped factors produced the following 't' values.

Table XXXI.

Means of Parental Factors for Improvers and Deteriorators.

Factor	Means		't'
	Improvers	Deteriorators	
Motivational	19·6	17·2	1·82
Emotional I	16·4	15·5	1·39
Emotional II	12·4	10·8	2·34
Cultural	9·0	7·9	1·18
Material	3·6	3·6	·048
Total P.F.	63·2	55·2	2·71
Significant P.F.	21·7	18·2	2·27

A comparison of the correlations indicates differences between the Improvers and Deteriorators.

Table XXXII.

Motivational Factor. I. and D. compared.

	Achievement at Age		
	11+ (V.R.)	12+	14+
Improvers	.303	.328	·348
Deteriorators	·515	·520	·509

Thus the Deteriorators have a closer relationship with their parents on motivational items.

Table XXXIII.

Emotional Factor I. I. and D. compared.

	11+(V.R.)	Achievement at Age 12+	14+
Improvers	·202	·128	·218
Deteriorators	·153	·328	·398

Since to be significant at the 5% level a correlation greater than ·285 is required, the correlation is insignificant for the Improvers. But the factor becomes significant by the 12+ age with the Deteriorators and is highly significant at 14+ age.

Table XXXIV.

Emotional Factor II. I. and D. compared.

	11+(V.R.)	Achievement at Age 12+	14+
Improvers	·311	·300	·187
Deteriorators	·091	·162	·164

Improvers' achievements show a decreasing association with this factor whereas deteriorators show a small but increasing association.

Table XXXV.

Cultural Factor. I. and D. compared.

	11+(V.R.)	Achievement at Age 12+	14+
Improvers	·524	·580	·477
Deteriorators	·547	·522	·520

The achievements of both groups are closely associated with the Cultural background.

Table XXXVI.

Material Factor. I. and D. compared.

		Achievement at Age.	
	11+(V.R.)	12+	14+
Improvers	·362	·346	·357
Deteriorators	·456	·305	·291

Whereas the association between this factor and Achievement for the Improvers remains constant, for the Deteriorators it decreases.

Table XXXVII.

Total Parental Factor. I. and D. compared.

		Achievement at Age.	
	11+(V.R.)	12+	14+
Improvers	·462	·568	·400
Deteriorators	·515	·554	·557

Between the ages of 11 and 14 years, the Improvers show a reduction in association with this factor, whereas the Deteriorators show a small increase.

Table XXXVIII.

Significant Parental Factor. I. and D. compared.

		Achievement at Age.	
	11+(V.R.)	12+	14+
Improvers	·531	·540	·499
Deteriorators	·719	·740	·731

The results in Table XXXVII are repeated here, but with a much closer association between the Deteriorators' achievement and this factor.

It had been hoped that by taking the position of the child in his school at the end of the first year, he would have had time to settle into his new environment and differences in schooling in the primary school stage would have smoothed out. In a number of cases fluctuations occured between the three measures - at 11+, 12+ and 14+ - which threw doubt on the reliability of the examinations as measures of achievement for these pupils.

The sample of children was divided into those from non-selective and selective schools. For the non-selective sample the improvement or deterioration in achievement between 11 yrs. and 14 yrs. was measured on a seven point scale. The improvement or deterioration of the selective sample was taken on a five point scale between ages 11 yrs. and 16 yrs.

Table XXXIX.

Parent Factors for reformed Improvers and Deteriorators.

Factor.	Non-Selective Sample Correlation
Motivational	·291
Emotional I	·189
Emotional II	·258
Cultural	·056
Material	·036
Total P.F.	·286
Significant P.F.	·171

For this size of sample (134) a correlation of ·168 is significant at the 5% level, and ·237 at the 1% level.

Table XL.

Parent Factors for reformed Improvers and Deteriorators.

Factor	Selective Sample Correlation
Motivational	.346
Emotional I	.250
Emotional II	.184
Cultural	·183
Material	.300
Total P.F.	.362
Significant P.F.	·497

For this size of sample (41) a correlation of ·302 is significant at the 5% level.

ENQUIRY III

Although the methods of seeking relationships between parental encouragement and school achievement by the use of correlation coefficients and means is valuable, the technique of allocating numerical values to non-numerical data is regarded with suspicion by some theorists. The method of Agreement Analysis developed by McQuitty (1956) avoids the use of numerical quanta on continuous distributions. It is used in this enquiry to determine predominant types of parent for two sets of children and to describe them in terms of their response patterns.

The test was taken as a battery of 53 items which could be conveniently grouped into dichotomous replies from the interview schedule.

In the earlier enquiries two criteria - ability and achievement - have been used. Now we consider these together to investigate the pattern of response of the parents of 'able-achievers'. The measure of ability is taken as the total 11+ score and the measure of achievement is the 'O' level mark described in the Design of the Experiment (p.42).

There were thirteen cases of pupils who had made a considerable improvement from their rank at 11+ to their rank on their 'O' level results.

The initial analysis grouped the parents of these thirteen members of the sample into six species, with one element not classifying with any other. The analysis was then continued to produce two genera, G_1 and G_2; one consisting of the six cases Nos. 17, 18, 24, 28, 160, 170 and the other of four cases 9, 169, 174, 175. S_4 was rejected as not classifying with these two genera.

There were ten items on which the whole population agreed:

> Complete Family, Still at school, Want 18+ leaving, In family of<4 children, Advise further education, Private house detached or semi-detached, Tidy homes, Parents can cope, Rarely restrict friendships, Were told stories.

The two genera agreed on an additional ten items. They disagreed on one item only and G_1 and G_2 separately contained 4 and 11 other items respectively. The common items were:

> Full discussion on career, Want maximum education, Full time further education, Both parents go to school, Good district, Good attitude to interview, Father involved, Rarely restrict T.V., Member of an organisation, Member of a library,

The item on which they disagreed:

Taking a magazine.

In addition G_1 contained items:

1. Good harmony in home,
2. Not had relatives living in,
3. Mother in good health,
4. Father in good health.

G_2 contained:

1. Mother educated beyond 15
2. Parents in P.T.A.
3. Made over 4 visits to school
4. Received information on school
5. Child involved in sports, concerts etc.
6. High level of culture in home
7. Child reads often
8. Child has had extra lessons
9. Have shared interests with child
10. Father has shared interests with child
11. Interview lasted over $\frac{1}{2}$ hour.

The schedules of parents in these two genera were searched for additional information.

Three of the four sample children in G_2 were girls, but the genus contained no more girls in the families. The general impression was that the parents were older than the sample average. They both attended the school functions and were both present at the interview. Their children were engaged in activities associated with Oxfam, Duke of Edinburgh Award Scheme, Girl Guides, Youth Orchestra or the Church, and they took cultural magazines. All the children had had music lessons. Their careers were known and included the teaching and medical profession. The family shared many

common interests and the father spent time with the children, particularly in outdoor activities. The parents hoped that their children would gain from education understanding of, and interest in, life, appreciation of the world we live in and development of personality.

The genus G_1 contained four boys and two girls. The career aspirations given were architecture, banking or art. They had not had lessons outside the normal school course. Although both parents attended school functions, they visited less frequently than G_2 and in general were not members of the P.T.A. They had not had relatives living in the house and were willing to take advice from outside agencies on the upbringing of their children. The interests were shared more with the father and inclined towards sport. The parents indicated that their own childhood had been happy. Their education aspirations were more career-orientated than those of G_2.

Parents of children who have changed jobs in their first post-school year.

The analysis of parents in this group produced three genera. G_1' contained cases 45, 121, 53, 187, 88, 191; G_2 contained cases 118, 120, 112, 115; and G_3 contained 71, 86, 195.

The items common to all three genera were:-

> Parents prefer child to leave before 18 yrs., average or poor culture in home, not a high opinion of education, cannot say it had not been necessary to impress child to work, only the mother went on school visits.

In addition G_1' and G_2 contained six common items:-

> Mother not educated over 15 yrs., parents have not attended sports or concerts, home is a Council or terrace house, home is in a poor area or on a Council estate, child did not join library under 8 yrs. and did not have any extra lessons.

The pattern is completed for G_1' by:-

> complete family unit, parents not taking outside advice and not joining the P.T.A., parents were glad to leave school, child was not involved in sports, concerts;

and the pattern is completed for G_2 by:-

> less than four siblings, only one parent at interview and only one attends on school visits, career of child not discussed nor do parents advise further education, child does not take a magazine and is not a member of the library, mother not in good health, father was not educated over 15 yrs., poor level of agreement in the home.

In addition to the common items G_3 contained:-

> complete family with less than 4 siblings, good attitude to interview but only one parent seen,

parents not in P.T.A., only one parent attended school visits making less than four visits, child not involved in sports etc., parents had no previous experience with children, but told child stories, father in good health but not active in upbringing of child, his work did not affect the time he spent with child, child did not attend school under 5 yrs. of age.

A search of the schedules of these three genera produced the following additional information.

In genus G_1 the eldest child in each family was a girl, the parents had left school at 14 years of age. Child was not in, or had soon tired of, a youth organisation. The genus contained a case of a boy who had been backward at reading - his mother could not read; a girl who was pregnant; a girl who had run away from home; and a boy, who had a personality defect, was beyond parental control and on the night of the interview had been involved in a street fight which had resulted in his being taken to hospital.

All the sample children in G_2 were boys. Three of the four families were incomplete and in each family the eldest child was a boy. The sample boy was a member of a non-uniformed youth organisation. The parent had little or no interest in education.

D I S C U S S I O N

of

R E S U L T S

1. THE PROBLEM

2. RELATION BETWEEN PARENTAL ENCOURAGEMENT AND ABILITY

3. RELATION BETWEEN PARENTAL ENCOURAGEMENT AND ACHIEVEMENT

4. SUGGESTIONS FOR FURTHER RESEARCH AND SOLUTIONS

The work of Douglas and the surveys for the Plowden Committee have shown the important influence that the home plays in the school development of children under the age of eleven years. Fraser has shown that a close relationship exists between parental encouragement and attainment in the secondary school, when the measure of parental encouragement is taken on teachers' assessments. Aspects of the home background investigated by Fraser were predominantly Material or Cultural.

The present study was designed to discover home background items which are related to ability in a sample of children and to use this evidence to analyse the effects of parental encouragement on a child's achievement in the secondary school. Particular emphasis was laid on the Motivational and Emotional aspects.

Relation between Parental Encouragement and Ability.

The largest number of significant items relating to Ability was contained in the Cultural Factor. Here nine items reached the 5% level. Those having the greatest influence, apart from the general cultural assessment, were the length of education of the parents, library membership of the child, and whether the child had received any lessons outside

the normal school provision.

There were only 7 cases in which at least one of the parents had had education beyond 15 and wanted his child to leave at 15. The cultural pattern set by the length of the parents' education seems to persist in their children apart from the general raising of the mean age of leaving. It is to be expected that parents will wish their child to have, at least, the opportunities which they themselves enjoyed. This would be reinforced by the parent having found his own schooling a happy experience.

The encouraging parent will have ensured that the child joined the public library and that he borrowed books from it from an early age. It can be expected that the example set by the parents would create the environment in which books were valued and the child would be a regular reader. There is also a tendency for the parent to have given the child an opportunity to pursue some extra-curricular activity, such as piano lessons.

A large proportion (73%) of the sample were members of a youth organisation. There appears to be no significant association between this membership and Ability, unless the type of organisation is taken into account. Membership of a uniformed

organisation is significant at the 5% level. These organisations, such as scouts and guides, recruit their members at an earlier age than the normal youth club. Thus, apart from the differences in activities and membership, the influence of early habits on the child's Ability is indicated.

In considering reading habits the influence of library book reading would appear to be much more in evidence than regular reading of a magazine. Fifty-one percent of the sample of children take a magazine regularly and although in this group there is a wide variety of magazines read, from comics to technical journals, the item did not differentiate between the different levels of ability.

All three items included in the Material Factor proved significantly related to Ability. The negative correlation of -·298 between Ability and size of family, although less than Fraser's -·404, indicates a strong relationship The significance of the type of house and district confirm the findings of many other studies. These two items may be taken as an indication of the socio-economic level of the parents, having

correlations of ·380 and ·291 as compared with Fraser's correlations of ·363 and ·350 for living space and income.

Motivational items correlate closely with Ability. Seven items of the schedule reached the 5% level of significance. The most influential items are the school leaving age desired, the reasons for wanting this age and the desire for further education.

A lack of desire for further education is often upheld as derogatory in parents. However, there are parents who are well aware of the limitations of their child, and have his best interests in mind when stating that they do not wish their child to have any further education. These parents are willing to discuss the education of their child - the attitude to interview and length of interview did not correlate significantly with Ability - but have made a realistic assessment of the capability of the child.

The advantage which a child has in starting schooling before the age of 5 years has been shown by the National Child Development Study in the Plowden Report. The result is confirmed by this study. The expectation is that the advantage gained will diminish in importance as the child

progresses through the years of schooling. This hypothesis is borne out by the fact that the item was no longer significant for this sample at the 14+ age, a correlation of ·280 at 11 years becoming ·100 at 14.

Four items included in the Motivational Factor related to the relationships between the parents and the secondary school - whether the parent was a member of the Parent Teachers' Association, visited the school, attended sports etc. and whether on these occasions both parents attended. Although one would have expected a similar pattern to have taken place in the Primary Schools, these items did not prove significant in relation to Ability. The Parent Teacher Association was regarded with suspicion by some parents who considered it a fund raising organisation or a clique of adults on a superior social level to themselves. Many parents would attend meetings which were specifically connected with the education of their child, but avoided the social and fund raising efforts.

The question which proved most revealing in the Emotional context concerned to what extent the

parents impressed on the child the need to do well at school. Some parents considered themselves fortunate that it had never been necessary to impress the child, but many admitted heated arguments had taken place on this issue. Yet other parents, apparently, had not given the matter any thought. A correlation with Ability on this item of ·311 was very significant.

For a child to have both his parents alive and in good health is shown to have a significant relationship with Ability. In cases where the discipline and management of the home were dependent on one adult, there were signs of stress.

The fact that tidiness of the home correlated significantly with Ability is another indication of the advantages which the 'more able' homes have over the less able. There were not sufficient houses exhibiting excessive tidiness to test Hunt's hypothesis concerning the retarding effects of such homes. But at the other extreme of the Ability range there were cases where untidiness created an insuperable handicap to normal living. It is difficult to imagine how the children of these homes could overcome the depressing effect of such surroundings.

Very few parents exercised control over the watching of television or their child's choice of friends and the scores on the four point scale did not indicate, for this item, any significant differences between the Ability groups. Similarly Ability does not seem to be associated with the degree of harmony in the home, whether the parents' own childhood was happy or whether the home had other relatives than the immediate family unit living in the house.

The second Emotional Factor contained no items which showed significant differences between the Ability groups. The majority of items here were included to differentiate between strong and weak patterns in communication between parent, school and child. It was anticipated that habits of communication developed in the primary school would persist in the secondary years, and the questions related more specifically to the latter. Thus a lack of association with Ability measured at 11 years suggests either that the pattern does not project back into the primary years or that the lack of association is real. The results of the second enquiry support the former reason.

The scoring of items for the group factors was effected to give as equal weight as possible to

each item and did not take into account the variations in correlations between items and Ability in a group. A factor analysis may have produced stronger relations and a redistribution of items into different factors. Several items of the schedule could have been included in more than one hypothetical group.

The Significant Parental Factor contained 24 items from the schedule.

The impression gained is that cultural, motivational and material aspects of the home predominate in relation to Ability. These items overpower the emotional aspects.

The Relationship between Parental Encouragement and Achievement.

Fraser found that the home background variables correlated more closely with her criteria than with I.Q. This tendency to correlate more closely is evident in the first part of Enquiry II of the present investigation (Table XXIX). Only one factor - the Material Factor - fails to have a higher correlation at the 14+ age than with the V.R. at 11+ The Material and Cultural Factors have a close relation with Ability in the earlier years as shown in the first enquiry. Their effect on achievement at 14+ differs very little from this

as shown by the changes in correlation (-.001 and +·016).

However, the Motivational and Emotional Factors I and II are seen to increase their influence between 11 and 14 years. The changes in correlation for these components are +·118, +·146 and +·096 respectively. Thus Emotional Factor II from being insignificantly related to Ability at 11 years (r=·133) is significant at the 1% level at 14 years. (r=·229). At 14 years Emotional Factor I (r=.388) and Motivational Factor (r=·410) are seen to have a closer relation than the Material Factor (r=·380).

This shift in emphasis is more clearly seen when the degree of improvement is considered. Baker concluded that intelligence affected achievement. Thus to consider the effects of the home factors on the secondary years, it is better to consider the degree of improvement of the individual irrespective of his Ability level. The final part of Enquiry II produced the correlations in Tables XXXIX and XL. For the non-selective school sample the Material and Cultural Factors have negligible association with the degree of improvement. The important factors are seen to be Motivational (r=.291) Emotional II (r=·258) and

Emotional I (r=·189). Hence in the non-selective schools the attitude of the Parents towards education, interest in school visits and choice of child's career and the strength of communications between home, child and school as shown by shared interests, ability to cope, knowledge of parental role and time with father are factors which affect degree of improvement.

In the smaller sample of selective school children the degree of improvement up to age 16+ is affected significantly by the Motivational Factor. Although the effect of the Cultural Factor has been overcome, the Material Factor is still almost significant at the 5% level. There is a close relationship between the Significant Parental Factor and degree of Improvement (r=·497) for this sample.

There was no significant difference between the Abilities of the Improver and Deteriorator groups at age 11. Consequently they can be taken as drawn from the same population on the Ability Scale. However, there exists a significant difference in the means for one single component - Emotional Factor II. This factor was composed of items concerned with communication - child talking of school, time child spends with the family, ability

of parents to cope and readiness to seek advice.

Thus, as Kurtz and Swanson concluded, the Improvers would seem to have an advantage in better and more frequented lines of communication between home, school and child. This component decreases in importance as affecting the achievement of Improvers, but increases as a factor affecting the achievement of Deteriorators (Table XXXIV). When the non-selective and selective elements of the sample are considered separately, Emotional Factor II is seen to relate more closely to the degree of improvement of the non-selective pupils than it does for the selective.

The means on the Motivational, Emotional I and Cultural Factors are all higher for the Improvers than Deteriorators. The combined effect is shown in the Total Parent Factor and in the Significant Parental Factor, both of which have significant differences in the means for the two groups.

The general impression from a consideration of the correlations for Improvers and Deteriorators over the three year period is that whereas the Improvers are becoming gradually less dependent on the Parental factors in determining their achievement, the deteriorators are more dependent.

The correlations for the Deteriorators on the two composite factors of ·557 and ·731 are indicative of the large effect that parental factors have on this group. (Table XXXVIII).

Erikson's statement that 'the ultimate purpose of child rearing is separation' (1950) shows signs of being fulfilled in the case of Improvers but not in the case of Deteriorators.

When improvement is considered irrespective of ability, then the closest relationship exists with motivational items in the home background. Emotional items are also significant but, whereas the degree of improvement in the non-selective sample is more dependent on those items relating to communication, the selective sample's improvement is more closely associated with the general emotional atmosphere of the home.

Patterns for Two Groups of Parent.

Wiseman called for more research on the stimulating effects of the home environment. In this study the home backgrounds of the children who were high on the Ability Scale, and also had high achievement level, were considered. These were taken from pupils in the selective schools who had proceeded to 'O' level.

The patterns of the background of these able achievers will coincide in many respects with the intuitive picture of many with experience in education. The type of parent described by Musgrove (1966) is evident in Genus G_2. In this group the parent has taken a very active part in the education of his children by stimulating cultural activities, visiting the school, encouraging discussion of careers and length of schooling. The parents tend to be older than the average sample parent and their smaller families have enabled them to devote more time to the individual child.

The other main group of parents of able achievers, the genus G_1, would seem to be that in which both the parents are in good health and provide an emotionally stable atmosphere in which the child can develop.

By contrast, the parents of children who appear to have had difficulties in making adjustment to their post-school world, appear to be almost the exact antithesis of the parents of able achievers. One genus, contains children from incomplete families. Where the parents are divorced, or separated, it

can be expected that the home environment would be emotionally unstable. Parents have found little time for their children and consequently the communication between parent and child, which could have ensured discussion of possible careers, has not been present.

In this group of pupils having difficulties in adjusting to their post-school world, the range of ability was spread over four ability groups and consequently the difficulty in adjustment cannot be attributed wholly to lack of ability.

The McQuitty Agreement Analysis performed on these two small groups could be extended, with suitable computational aid, to consider patterns in larger groups of parents in this sample.

In this limited application there is evidence to support Musgrove's finding that some able pupils will be successful in an environment created by striving parents. However, another group of able pupils is seen from this analysis to be successful in the healthy, emotionally stable atmosphere of their parents.

Suggestions for Future Research and Solutions.

Emphasis has been placed in previous studies on the retarding effects of poor homes. The low levels of material provision and cultural atmosphere of these homes have been found to contribute to the poor performance of the children in the school situation. Recommendations have been made that the children from these homes should receive special attention (Central Advisory Council for Education 1967). This recommendation is supported in the present investigation by the findings relating to children's ability at eleven years of age.

However, the need for special provision goes far deeper than the material and cultural aspects. When the child's progress in the secondary school is considered, the motivational and emotional aspects of home background are found to be increasingly important. In particular, those pupils who show deterioration in achievement appear to lack good communication between their parents and the school and between their parents and themselves. Hence, in seeking to improve the opportunities for children to reach their full scholastic potential, efforts must be made to influence the attitudes of the parents towards their children's education

(Wiseman 1964b) and to improve the emotional atmosphere of homes, particularly where conflict arises between the ideas of parents, children and schools (Wheeler 1961).

How best can this be done? Initially, more research is required to determine more precisely the effects of emotional items. There is difficulty in defining emotional aspects of family life, in formulating methods of measurement and in assessing their effects. A survey on the scale of the present enquiry can do little more than indicate aspects which could repay large scale study. The items which this survey suggests should be investigated are: the effect of shared interests within the family, which bring the family together for some periods of leisure; the degree of agreement and harmony in the family; and the opportunities for parents to visit the school and discuss their children with the teachers.

The discrepancies between many children's performances at the ages of eleven, twelve and fourteen years of age suggest that analysis should be carried out of the initial reactions of children in their adjustment to secondary school. The attitudes and achievement of children coming from differing types of school discipline in the primary

years may repay investigation.

The majority of items in the interview schedule dealt with aspects of the home background which are open to change by persuasion. Consequently, in so far as the study indicates aspects of the home background which reinforce, or retard, achievement, improvement can be achieved by the education of parents. The inference of Mays (1961) is that parent education in this country is at a primitive level. It is not an aspect of the development of children that has received thorough investigation.

The Board of Education (1925) recommended that instruction in parentcraft be given to schoolgirls, and developments in the school curriculum have led to the inclusion of courses primarily concerned with physical health. However, for many, the motivation to learn is greatest when the problem to be faced is imminent. Thus, although the gaining of factual knowledge at school age is helpful, it should be reinforced when the adult reaches parenthood.

Beyond the statutory school leaving age there is no systematic organisation for the education of parents. The problems of parenthood tend to be

solved by the methods of the previous generation. Parents learn from their parents or close friends, or rely on 'instinct'. (Stern 1959).

'Professional' education for parents can be given at three levels - impersonal, semi-personal and personal. Television, radio, newspaper and magazine articles can raise the general level of parenthood by influencing those who do not gain their knowledge from books.

The Royal Society of Health has instituted a course in parentcraft which could contribute a solution if extended to include advice on the motivational and emotional problems encountered during the period of children's schooling. A course of this type is likely to attract only a very small section of the community, but may influence others by the publicity it receives. It is unlikely that it will reach some of those for whom it would be the most help.

In Canada counselling services exist for parents of normal children experiencing academic, social or emotional difficulties. These services can help to relieve the stress imposed on parents in the upbringing of their children. In this country counselling is restricted, in general, to the children.

The Children and Young Persons Act (1963) provided an opportunity for developing a service which, whilst incorporating some aspects of the Canadian counselling service, could be wide in scope. The introduction of Family Advice Centres could do much to alleviate the anxieties which parents experience in dealing with their children during school years, with the consequent improvement in attitudes and emotional atmosphere in the home. By advice, or direction to specialist services, many problems could be solved before they became acute. Kellmer Pringle (1965) has emphasised the need for preventive facilities of this type. Such a service would augment the efforts being made to improve mental health.

However, it is at the personal level that efforts will be most effective. The early diagnosis of deterioration in achievement coupled with knowledge of the home background is necessary. To reach the sections of the population having the greatest need will require the untiring effort of devoted teachers and social workers. For this work such courses as that for teacher/social worker given at Edge Hill Training College, would seem to be apt.

Parents who are reluctant to visit the school may not be averse to being visited in their own home. By personal contact and a sympathetic approach progress can be made. In this respect the greater involvement of parents in the educative process, as illustrated by Hayman (1963) and in the schools as proposed by Young (1964), is likely to lead to the most fruitful results.

S U M M A R Y

O F

C O N C L U S I O N S

The findings of this research support the hypothesis that there is a close relationship between factors in the home background and the ability of school children.

1. Items of the home background which have a significant relationship with ability are the type of house and district, tidiness, cultural atmosphere and the number of children in the family.

2. In the parents' background, items which have a significant relationship with the child's ability are their own health, whether they received education beyond the age of 15 years and whether their schooling was a happy experience.

3. Aspects of the parents' attitudes which have a significant relationship with the child's ability are their attitude to education, impressing upon the child the need to do well, the school leaving age they desire for their child, and the advice they have offered the child on further education.

4. Items in the child's background that are significantly related to his ability are whether he was told stories as a child, went to school before the age of five years, had extra lessons, was a member of the library or of a uniformed organisation.

Scholastic achievement in the secondary school is reinforced by parental encouragement.

5. As the child moves through the secondary school the effects of motivational encouragement and emotional stability increase significantly and the effects of the material provision decrease.

6. Deteriorators have significantly lower scores than Improvers in an emotional factor relating to the intercommunication between child, parents and school.

7. Deteriorators have significantly poorer parental encouragement - as defined by the Total Parental Factor - than Improvers.

8. The relationship between the achievement of Improvers and parental encouragement is less close than the relationship between the achievement of Deteriorators and encouragement by their parents. Thus the Improvers appear to be moving towards independence, whereas Deteriorators are becoming more handicapped by their home background.

9. The parents of able-achievers have taken a very active part in the education of their children by stimulating cultural activities, visiting the school and encouraging discussion.

10. By contrast, the parents of children who changed jobs in their first post-school year have found little time for their children.

11. For selective school children, the closest relationship between the amount of scholastic improvement and home background occurred in the motivational factor.

12. For non-selective school children, the amount of scholastic improvement was significantly related to both the motivational and emotional factors.

13. Neither the material provision nor the cultural provision of the home had a significant relationship with the amount of scholastic improvement of secondary school children.

14. These findings suggest that, to enable children to achieve their scholastic potential, efforts are required not only to improve the material and cultural background of primary school children, but also to ensure emotional stability in the homes and to cultivate sound attitudes to education in parents. Greater intercommunication between home and school is required. The most difficult group to reach, but the one in which the greatest benefit could result, is that group of parents who at present show little interest in the education of their children.

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APPENDICES

I Insignificant Items: Replies in Ability Groups.

II Scores for Items in Grouped Factors.

III Ability and Achievement Scores: Whole Sample.

IV G.C.E. 'O' Level Rank: Selective Schools Sample.

V Scores on Factors: Whole Sample.

VI Agreement Analysis Scores: (a) Able Achievers, (b) Two Job Sub-Sample.

VII Letter to Parents (in folder).

VIII Copy of Schedule (in folder).

IX Cope-Chat Card (in folder).

APPENDIX I

Insignificant Items: Replies in Ability Groups

Sixteen questions and three assessments on the schedule did not reach the 5% level on the chi-squared test. The number of responses in each ability group is given.

INSIGNIFICANT ITEMS: REPLIES IN ABILITY GROUPS

QUESTION	Ability Group 1	2	3	4	5	6	7
2. Career discussed	7	14	16	17	23	22	16
8. Member of P.T.A.	2	4	6	8	4	10	8
not member in school with P.T.A.	1	14	12	15	8	13	13
9. Visits to school: over 4	5	13	12	15	18	14	11
2, 3, 4	3	12	7	12	11	7	5
0, 1	1	2	6	3	5	9	5
10. Both went on visit	3	13	11	12	16	21	9
Father only	1	4	3	2	3	-	1
Mother only	5	10	7	15	13	5	10
Neither	-	-	4	1	2	4	1
11. Parents attend sports etc.	2	11	13	8	12	13	10
child involved	4	12	12	10	21	19	14
13. Talk of school: often	1	9	10	13	11	10	12
occasionally	3	4	4	4	13	8	6
did not	5	14	11	13	10	12	3
15(a) Restrict T.V. watching 11	1	4	1	2	4	3	1
10	4	5	3	4	7	7	4
01	-	2	2	5	4	3	5
00	4	16	19	19	19	17	11

QUESTION	Ability Group 1	2	3	4	5	6	7
15(b) Restrict friends 11	2	3	3	2	3	1	1
10	1	2	4	3	1	2	-
01	1	4	4	6	6	5	6
00	5	18	14	19	24	22	14
16. Member of Organisation	5	24	17	18	24	26	15
18. Take magazine	4	10	12	17	24	11	12
cultural	2	2	3	7	10	4	7
22. Took external advice	2	10	6	9	14	13	7
23. Have had relatives living in	3	6	9	8	10	3	4
24. Previous experience with children	8	22	18	20	21	23	12
25. Common interests	4	12	13	17	21	20	15
Cultural	1	3	5	6	7	9	10
26. Interest with Father	5	13	13	13	18	17	10
Cultural	-	2	4	6	7	4	6
29. Happy childhood	3	17	18	25	26	19	16
Attitude to interview 11	3	9	6	12	15	14	10
10	2	10	11	8	9	8	8
01	1	4	7	9	5	7	3
00	3	4	1	1	5	1	-
Agreement in home 11	2	6	8	11	15	11	11
10	2	10	8	12	7	11	5
01	2	6	8	6	7	6	4
00	3	5	1	1	5	2	1

QUESTION		Ability Group 1	2	3	4	5	6	7
Involvement	11	1	5	2	6	8	6	7
of father	10	2	11	13	11	10	14	8
	01	3	6	7	10	9	8	3
	00	3	5	3	3	7	2	3

APPENDIX II

Scores for Items in Grouped Factors

In general, scores are on a two or three point scale. The largest scales, for membership of organisations and library membership, were obtained by adding the scores on separate elements.

e.g. Library membership:

Member.	Joined under age 8.	Regular reader.
Not a Member.	Joined under age 11.	Not Regular reader.
	Joined after age 11.	

SCORES FOR ITEMS IN GROUPED FACTORS

Motivational Factor.

Description	Question or Assessment	Score Values				
Choosing Career.	Q.1			2		0
	Q.2			2	1	
Interest in	Q.3			2	1	0
Education.	Q.4			2	1	0
	Q.6			2	1	0
	Q.20			2		0
	A.4		3	2	1	0
	A.9	4	3	2	1	0
Interest in	Q.8			2	1	0
visiting	Q.9			2	1	0
school.	Q.10		3	2	1	0
	Q.11		3	2	1	0
Early days.	Q.21		3	2	1	0

Emotional Factor I

Description	Question or Assessment	Score Values
Complete Family		2 0
Health	Q.28	2 1 0
Control T.V.	Q.15	3 2 1 0
Friends	Q.15	3 2 1 0
Impress to do well	Q.14	2 1 0
Other relatives living in	Q.23	2 0
Own Childhood	Q.29	2 0
Harmony	A.5	3 2 1 0
Tidiness of home	A.6	3 2 1 0

Emotional Factor II

Description	Question or Assessment	Score Values
Shared Interests and Communication	Q.12	2 0
	Q.13	3 2 1 0
	Q.25	2 1 0
Knowledge of Parental Role	Q.22	2 0
	Q.24	2 1 0
Time with Father	Q.26	2 1 0
	Q.27	2 1 0
	A.7	3 2 1 0
Ability ot 'cope'	A.8	2 0

Cultural Factor

Description	Question or Assessment	Score Values.							
Own Education	Q.7						2	1	0
	Q.30							1	0
Membership of organisations	Q.16				4	3	2	1	0
Library membership	Q.17	7	6	5	4	3	2	1	0
Magazines	Q.18						2	1	0
Extra lessons	Q.19							1	0
Culture in home	A.3						2	1	0

Material Factor

Description	Question or Assessment	Score Values				
No. of children	Q.5			3	2	1	0
Type of House	A.1			3	2	1	0
District	A.2			3	2	1	0

APPENDIX III

Ability and Achievement Scores:

Whole Sample.

Case No.	11+				Achievement		
	V.R.	Arith.	Eng.	Total	11+	12+	14+
1	125	138	121	385	123	111	121
2	126	124	140	390	125	121	123
3	130	126	136	392	124	124	125
4	125	133	129	387	124	125	125
5	130	130	128	388	123	117	119
6	129	127	137	393	125	124	121
8	122	120	136	378	121	120	119
9	130	126	120	376	117	125	124
10	125	123	128	376	119	120	119
11	121	133	117	371	118	120	115
15	128	122	118	368	114	110	114
17	111	139	113	363	119	121	124
18	116	128	113	357	114	110	114
19	118	124	119	361	115	105	118
22	126	122	120	368	115	102	109
23	118	121	121	360	115	112	115
24	114	116	121	351	112	114	117
28	118	118	109	345	108	110	112
29	108	138	117	363	121	115	115
30	116	135	117	368	119	123	123
32	117	113	117	547	109	111	108
33	120	122	114	356	112	112	112
34	105	104	95	304	95	94	104
35	101	94	94	289	90	90	98
36	98	100	95	293	91	93	94

Case No.	11+				Achievement		
	V.R.	Arith.	Eng.	Total	11+	12+	14+
37	111	109	105	325	100	104	103
38	99	96	99	294	94	91	83
39	97	87	91	275	87	89	70
40	87	-	-	(261)	(80)	78	78
41	85	-	-	(255)	(78)	87	91
42	103	103	106	312	99	104	100
43	89	-	-	(267)	(82)	82	96
44	95	85	85	265	81	80	91
45	77	_	_	(231)	(70)	81	90
46	109	99	94	302	92	95	98
47	106	103	87	296	90	97	95
48	104	102	105	311	98	95	90
49	104	98	94	296	91	90	87
50	97	102	99	298	95	98	93
51	109	115	105	329	104	105	103
52	-	-	-	-	-	-	-
53	99	-	-	(297)	(93)	90	87
54	106	104	114	324	103	103	101
55	106	106	110	322	103	99	98
56	100	89	94	283	87	93	97
57	105	99	94	298	92	91	90
58	108	101	102	311	96	97	93
59	93	79	92	264	82	82	90
60	102	94	101	297	93	92	80

Case No.	11+				Achievement		
	V.R.	Arith.	Eng.	Total	11+	12+	14+
61	84	87	87	258	83	70	91
62	115	112	107	334	104	100	92
63	106	104	109	319	101	101	105
64	100	89	101	290	90	92	82
65	85	-	-	(255)	(79)	83	92
66	108	104	111	323	102	103	104
67	102	107	114	323	105	109	102
68	106	103	87	296	90	91	82
69	104	104	101	309	97	98	103
70	114	106	111	331	103	103	109
71	97	95	95	287	91	87	81
72	108	104	100	312	97	96	95
73	104	105	102	311	98	102	99
74	93	90	86	269	84	81	77
75	98	96	83	277	85	85	103
76	108	105	95	308	95	77	85
77	94	104	97	295	95	95	87
78	96	91	90	277	86	104	87
79	92	73	93	258	79	77	77
80	93	96	87	276	87	95	87
81	87	-	-	(261)	(80)	-	-
82	92	77	83	252	76	84	81
83	86	75	67	228	68	79	77

Case No.	11+ V.R.	11+ Arith.	11+ Eng.	11+ Total	Achievement 11+	Achievement 12+	Achievement 14+
84	107	105	113	325	103	84	95
85	80	-	-	(240)	(73)	78	73
86	89	97	81	267	85	85	81
87	109	114	102	325	103	95	103
88	100	109	108	317	103	95	88
90	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-
92	111	125	112	348	113	95	85
93	89	86	84	259	81	95	95
94	112	112	106	330	104	113	113
95	94	95	89	278	88	95	88
96	93	93	87	273	86	95	87
97	106	106	106	318	101	103	101
98	84	-	-	(252)	(77)	73	77
99	92	92	85	269	84	84	95
100	101	105	99	305	97	95	101
101	84	-	-	(252)	(77)	77	77
102	84	-	-	(252)	(77)	81	95
103	110	99	112	321	100	95	101
104	101	108	106	315	102	95	104
105	98	90	88	276	85	95	101
106	98	91	94	283	88	87	85
107	96	93	101	290	92	95	103

Case No.	11+				Achievement		
	V.R.	Arith.	Eng.	Total	11+	12+	14+
108	95	95	89	279	88	87	81
109	99	99	94	292	92	86	81
110	93	97	87	277	88	95	88
111	85	-	-	(255)	(78)	76	81
112	93	88	86	267	83	79	77
113	76	-	-	(228)	(69)	77	75
114	116	120	99	335	104	104	106
115	101	102	98	301	95	105	93
116	76	-	-	(228)	(69)	75	72
117	102	96	99	297	93	103	98
118	86	-	-	(258)	(79)	89	83
119	79	-	-	(237)	(72)	67	69
120	84	-	-	(252)	(77)	69	77
121	89	-	-	(267)	(82)	91	89
122	85	-	-	(255)	(78)	83	90
123	108	128	117	353	116	(116)	95
124	74	-	-	(222)	67	69	67
125	98	96	98	292	92	95	79
126	87	102	86	275	89	78	91
127	108	112	118	338	109	109	107
128	113	112	113	338	107	98	104
129	91	101	89	281	90	82	79
130	82	-	-	(246)	(75)	79	82
131	78	86	79	243	79	72	92

Case No.	11+				Achievement		
	V.R.	Arith.	Eng.	Total	11+	12+	14+
132	101	108	115	324	106	107	103
133	106	117	107	330	106	104	106
134	118	108	109	335	103	106	109
135	84	-	-	(252)	(77)	77	69
136	104	96	95	295	91	90	106
137	103	112	106	321	104	92	78
138	103	109	113	325	105	93	104
139	103	105	101	309	98	106	116
140	120	107	113	340	104	119	120
141	118	130	107	355	113	114	113
142	123	113	132	368	116	113	102
143	114	122	103	338	102	113	114
144	-	-	-	-	-	-	-
145	115	122	117	354	113	108	115
146	120	111	114	345	107	107	114
147	114	110	120	344	109	104	114
148	110	128	106	344	111	108	118
149	112	118	114	344	110	117	107
150	124	124	130	378	120	118	110
151	123	126	121	370	117	108	110
152	117	119	107	343	107	113	107
153	121	114	117	352	110	111	104
154	115	106	121	342	108	107	111

Case No.	11+ V.R.	11+ Arith.	11+ Eng.	11+ Total	Achievement 11+	Achievement 12+	Achievement 14+
155	119	112	114	345	107	102	118
156	108	115	117	340	110	109	109
157	115	107	120	342	108	113	108
158	120	113	111	344	107	117	108
159	-	-	-	-	-	-	-
160	124	125	113	362	113	119	119
161	130	124	128	382	120	114	115
162	119	-	-	(357)	(113)	111	114
163	126	124	121	271	116	116	113
164	128	123	127	378	118	118	119
165	126	134	117	377	119	118	115
166	118	119	133	370	119	119	117
167	124	110	130	364	114	112	116
168	117	119	124	360	115	114	115
169	121	122	118	361	114	116	119
170	118	126	121	365	117	124	123
171	115	115	119	349	111	114	113
172	131	135	125	391	123	123	124
173	126	127	116	369	115	115	115
174	134	124	127	385	119	119	120
175	120	123	121	364	116	119	119
176	133	125	136	394	124	117	119
177	122	122	119	363	114	113	111

Case No.	11+				Achievement		
	V.R.	Arith.	Eng.	Total	11+	12+	14+
178	127	125	123	375	118	116	116
179	-	-	-	-	-	-	-
180	123	95	120	338	102	98	89
181	101	106	98	305	97	99	104
182	104	109	99	312	96	89	99
183	105	92	94	291	89	97	104
184	-	-	-	-	-	-	-
185	109	117	102	328	104	109	109
186	108	118	111	337	109	102	89
187	91	85	80	256	78	74	74
188	111	117	102	330	104	104	96
189	86	-	-	(258)	(79)	79	79
190	98	92	96	286	89	89	89
191	81	-	-	(243	(74)	78	78
192	97	95	92	284	89	89	97
193	104	108	101	313	99	104	98
194	102	94	92	288	89	89	102
195	102	97	109	308	98	96	89

APPENDIX IV

G.C.E. 'O' Level Rank: Selective Schools Sample.

G.C.E. 'O' Level Rank for Selective School Sample.

Case No.	'O' Rank.	Case No.	'O' Rank
1	15	160	9
2	7	161	6
3	1	162	16
4	2½	163	12½
5	13	164	7
6	10½	165	12½
8	21	166	11
9	2½	167	10
10	19	168	15
11	16	169	8
15	17	170	3
17	4	171	17
18	6	172	2
19	10½	173	18
22	21	174	1
23	21	175	4
24	8	176	5
28	12	177	19
29	9	178	14
30	5		
32	18		
33	14		

APPENDIX V

Scores on Factors: Whole Sample

M.F. - Motivational Factor

E.F.I. - Emotional Factor I

E.F.II - Emotional Factor II

C.F. - Cultural Factor

M'F. - Material Factor

T.P.F. - Total Parental Factor

S.P.F. - Significant Parental Factor

See Appendix II for scoring of items in Factors.

Case No.	M.F.	EFI	EFII	C.F.	M'.F.	T.P.F.	S.P.F.
1	27	17	20	19	6	89	34
2	22	18	13	13	2	68	30
3	19	12	11	10	1	53	26
4	26	20	14	16	4	80	33
5	20	20	7	2	3	52	18
6	18	15	8	11	2	54	22
8	25	16	10	15	3	69	25
9	32	17	19	17	6	91	37
10	17	10	9	3	6	45	18
11	14	19	13	10	2	58	21
15	24	17	15	10	6	72	28
17	24	18	9	9	8	68	30
18	25	19	13	11	6	74	29
19	26	13	14	15	6	74	31
22	25	18	16	10	4	73	23
23	30	14	12	10	2	68	29
24	25	19	19	10	7	80	32
28	22	20	16	8	6	72	24
29	12	17	9	1	4	43	17
30	17	19	11	14	3	64	24
32	25	13	13	17	3	71	27
33	25	17	9	7	2	60	24
34	21	16	12	11	3	63	27
35	22	20	12	12	3	69	24

Case No.	M.F.	EFI	EFII	C.F.	M'.F.	T.P.F.	S.P.F.
36	6	11	7	5	2	31	10
37	24	17	13	8	4	66	26
38	3	10	6	2	1	22	2
39	17	16	7	6	4	50	15
40	27	15	16	14	3	75	22
41	16	18	8	5	2	49	9
42	18	18	9	10	3	58	17
43	26	16	13	9	6	72	24
44	10	16	8	1	1	36	6
45	5	11	5	2	2	25	4
46	22	14	16	10	3	65	22
47	24	16	8	3	2	53	19
48	13	19	9	4	6	51	17
49	18	18	8	0	1	45	9
50	19	17	11	10	1	58	23
51	22	20	15	4	4	65	22
52	29	18	14	14	7	82	33
53	14	15	7	6	2	44	16
54	14	14	8	7	1	44	15
55	17	15	11	5	6	54	17
56	26	17	13	8	4	68	26
57	19	13	15	6	3	56	17
58	14	13	12	5	6	50	15
59	22	18	16	6	3	65	17
60	17	15	11	5	2	50	17

Case No.	M.F.	EFI	EFII	C.F.	M'.F.	T.P.F.	S.P.F.
61	20	11	13	6	6	56	24
62	8	12	6	1	1	28	7
63	28	21	15	13	6	83	36
64	19	19	13	10	2	63	16
65	9	13	5	6	1	34	10
66	22	14	8	12	7	63	28
67	25	17	15	13	3	73	24
68	21	14	10	4	8	57	22
69	25	19	16	9	6	75	30
70	24	11	16	12	7	70	29
71	15	19	7	11	6	58	20
72	20	16	9	12	3	60	24
73	26	19	19	14	2	80	26
74	19	10	9	7	1	46	15
75	12	14	9	1	1	37	7
76	26	21	18	7	6	78	28
77	13	19	10	5	3	50	14
78	17	16	9	7	2	51	17
79	12	14	4	8	4	42	13
80	9	16	10	6	3	44	11
81	22	13	13	6	2	56	13
82	9	15	11	2	1	38	4
83	18	11	12	2	2	45	8
84	14	16	15	6	2	53	14
85	28	17	13	16	3	77	25

Case No.	M.F.	EFI	EFII	C.F.	M'.F.	T.P.F.	S.P.F.
86	17	13	13	4	1	48	13
87	27	17	11	5	4	64	21
88	10	19	10	4	2	45	11
90	25	13	10	11	5	64	26
91	19	10	10	13	8	60	29
92	9	16	11	10	2	48	11
93	21	15	10	10	2	58	17
94	19	18	11	7	7	62	24
95	19	17	15	4	4	59	18
96	23	9	5	5	1	43	16
97	24	17	13	9	8	71	28
98	14	14	10	9	2	49	9
99	28	16	14	14	5	77	30
100	28	13	9	15	8	73	33
101	21	15	14	7	1	58	16
102	25	18	17	14	6	80	29
103	11	14	5	1	2	33	14
104	11	11	9	7	2	40	14
105	21	18	16	7	2	64	17
106	20	17	12	7	3	59	16
107	19	15	14	12	2	62	23
108	17	17	18	7	3	62	13
109	6	12	7	1	1	29	3
110	18	9	12	6	2	47	11
111	10	19	13	4	2	48	13

Case No.	M.F.	EFI	EFII	C.F.	M'.F.	T.P.F.	S.P.F.
112	8	8	8	2	1	27	8
113	22	12	16	5	3	58	16
114	20	9	1	6	2	38	17
115	8	13	6	1	4	32	9
116	10	10	9	2	1	32	8
117	11	15	9	5	1	41	9
118	11	14	13	2	1	41	5
119	5	13	6	2	3	29	3
120	12	8	9	3	2	34	7
121	6	13	4	1	1	25	-1
122	18	15	10	5	7	55	18
123	12	7	11	4	1	35	9
124	21	11	14	15	1	62	17
125	16	13	14	12	1	56	10
126	15	15	10	1	1	42	11
127	24	9	10	8	1	52	17
128	5	13	4	5	3	30	6
129	21	21	12	3	2	59	16
130	16	15	10	1	1	43	9
131	19	17	8	3	1	48	15
132	15	17	8	8	2	50	18
133	20	17	11	14	1	63	20
134	27	20	15	14	1	76	24
135	8	15	11	3	1	38	5

Case No.	M.F.	EFI	EFII	C.F.	M'.F.	T.P.F.	S.P.F.
136	16	20	13	2	3	54	12
137	12	19	13	8	6	58	17
138	16	20	12	13	1	61	18
139	11	15	16	11	2	55	17
140	25	19	13	10	4	71	26
141	12	17	11	5	5	49	20
142	22	14	7	16	5	64	29
143	26	21	16	17	5	85	34
144	27	21	10	9	3	70	24
145	3	14	10	3	1	31	5
146	19	12	10	5	8	54	26
147	22	18	13	13	3	69	25
148	19	18	13	8	7	65	24
149	15	19	7	7	4	52	19
150	9	16	12	9	2	48	17
151	12	10	10	9	6	47	20
152	14	18	7	11	7	57	29
153	11	13	7	3	4	38	13
154	19	16	14	9	3	61	21
155	15	21	13	8	1	58	17
156	17	15	12	13	3	60	21
157	17	11	6	3	2	39	13
158	22	15	16	13	7	73	30
159	28	19	16	7	6	76	25
160	23	21	10	12	6	72	32

Case No.	M.F.	EFI	EFII	C.F.	M'.F.	T.P.F.	S.P.F.
161	27	20	16	10	6	79	31
162	14	17	10	10	2	53	20
163	28	14	10	12	7	71	30
164	16	16	11	8	6	57	22
165	19	19	12	2	8	60	21
166	26	19	10	13	7	75	34
167	30	13	14	16	5	78	33
168	22	18	13	15	7	75	31
169	27	20	13	13	6	79	36
170	22	21	11	14	6	74	32
171	27	19	14	15	6	81	33
172	29	18	16	18	7	88	38
173	15	16	4	10	7	52	26
174	28	19	15	18	7	87	35
175	32	15	13	18	6	84	36
176	20	17	16	17	3	73	32
177	20	18	11	14	6	69	29
178	20	18	12	14	3	67	27
179	19	14	12	6	2	53	15
180	18	8	11	11	3	51	22
181	15	19	9	7	2	52	18
182	20	15	9	13	1	58	20
183	19	19	11	10	3	62	21

Case No.	M.F.	EFI	EFII	C.F.	M'.F.	T.P.F.	S.P.F.
184	15	13	11	5	2	46	15
185	25	17	13	6	3	64	21
186	13	13	8	10	4	48	23
187	3	8	4	2	3	20	3
188	26	17	10	11	7	71	27
189	14	15	9	4	5	47	15
190	5	15	8	4	2	38	5
191	17	17	8	2	2	46	13
192	17	14	12	13	3	59	18
193	21	15	15	9	2	62	16
194	18	19	13	1	2	53	21
195	7	12	4	13	1	37	13

APPENDIX VI

Agreement Analysis Scores

The battery of 53 items consisted of dichotomous replies. Yes is denoted by 1 and No by 0. The letters and figures F, G, H etc. refer to questions as recorded on the Cope-Chat card (Appendix IX). The numbers 009, 017 etc. are the case numbers.

Scores for Agreement Analysis

Able Achievers.

	009	017	018	019	024	028	029	030	160	169	170	174	175
F	1	1	1	1	1	1	1	1	1	1	1	1	1
G	1	1	1	1	1	1	1	1	1	1	1	1	1
H	1	0	1	0	1	0	0	0	1	1	0	0	1
I	1	1	1	1	1	1	0	0	1	1	1	1	1
K	1	1	1	1	1	1	1	1	1	1	1	1	1
M	1	1	1	1	1	1	1	0	1	1	1	1	1
N	0	0	0	0	0	0	0	0	0	0	0	0	0
Q	1	1	1	1	1	1	1	1	1	1	1	1	1
R	1	1	1	1	1	1	0	0	1	1	1	1	1
S	1	0	0	1	1	1	0	1	0	1	1	1	1
T	0	1	0	0	0	0	0	0	0	1	1	1	1
V	1	1	0	1	0	0	0	0	0	1	1	1	1
W	1	1	0	0	1	1	0	0	0	1	0	1	1
Y	1	1	1	1	1	1	0	1	1	1	1	1	1
A	1	1	1	1	1	1	0	1	1	1	1	1	1
E	1	1	1	1	1	1	0	1	0	1	1	1	1
I	1	0	1	0	1	1	0	0	0	0	0	0	0
-	1	0	1	1	1	1	0	1	0	0	0	1	1
1	1	0	1	1	1	1	1	1	1	1	0	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	0	0	1	1	1	1	1
6	1	0	0	0	0	0	0	0	0	1	1	1	1

	009	017	018	019	024	028	029	030	160	169	170	174	175
8	1	1	1	1	1	1	0	1	1	1	1	1	1
9	1	0	1	1	0	1	1	0	1	0	1	1	1
10	1	1	1	0	1	1	1	1	1	0	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	0	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1	0	0	1	0	0	0	0	1	0	0	1	1
-	1	1	1	0	0	0	0	1	1	1	1	1	0
30	0	0	0	1	0	0	0	1	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0
26	1	1	1	1	1	1	0	1	1	1	1	1	1
23	1	1	1	1	1	1	0	1	1	1	1	1	1
22	1	0	1	1	0	0	0	1	0	0	0	1	1
20	1	1	1	1	1	0	0	1	1	1	0	1	1
19	1	0	0	0	0	0	0	0	0	1	0	1	1
17	1	0	0	1	1	0	0	0	1	1	1	1	1
16	1	1	0	0	0	0	0	0	0	1	0	0	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1
14	0	0	1	0	0	0	0	0	0	0	0	1	0
12	1	0	0	1	1	1	1	1	0	0	1	1	0
11	1	1	1	1	1	1	0	1	1	1	1	0	0
10	1	0	1	1	1	1	1	1	1	1	0	0	0
8	1	0	0	1	1	0	1	1	0	1	1	1	1

Tel: 59113

10 Westbourne Drive,
[redacted].

1966.

Dear Parent,

As a higher degree student of Durham University, I am carrying out a study, which includes a survey of the educational views of a cross-section of parents of children who entered the secondary school in 1961. There have been a number of such studies in large cities recently, but very little has been done in towns the size of [redacted] and it is possible that several differences could be discovered.

As it is not possible to see all parents, a number of names have been drawn at random and as your name is amongst these, your views would be very much appreciated. In order that the replies should be representative, it is hoped that you will be willing to allow me to call on you and to ask you a number of specific questions. The visit should take approximately half an hour. As I am teaching in [redacted] during the day, the time of my visit is limited to the evening.

The replies are to be treated statistically and all conversation will be strictly confidential. The permission of the Local Education Authority and Head of School have been given, but no information mentioning names of parents or children will go either to the Local Education Authority or the school or be used in writing the results.

I would be grateful if you would allow me to call on you on. . ... at ..... . approximately. If this time is inconvenient and you would be prepared to let me know, we could then arrange another time to suit you. If I do not hear from you (Tel. no: 59113 any day between 5.30 p.m. and 7.00 p.m.) I shall call on you at the above time.

Yours faithfully,

(B. J. BOARDMAN)

E NO.... CHILD'S NAME ....

Has this child clear ideas about what career he hopes to follow?	YES 1 NO 2
If YES How did he decide? If NO Have you discussed this with him?	Full discussion and cooperation with parents 1 Parents discussed with School, Y.E.O.etc. 2 Child consulted School, Y.E.O. 3 No discussion with parents 4
At what age would you prefer him to leave school?	15 1 16,17 2 18+ 3
Why do you prefer this age?	Parents want maximum education for child 1 Child wants to leave then 2 Friends leaving then 3 Family need income 4 End of normal course 5 Other
Can I ask the ages of your other children and what they are doing?	Sex Age School Employment a) b) c) d) e) f)
Would you advise your child to have ~~nay~~ 365 further education?	Full time University,T.C. 1 Part-time non-vocational 2 Full time vocational 3 Evening classes 4 Part-time vocational 5 No. 6

e no..... Child's name ..

Can I ask at what age you (and your husband) finished full time education?	Mother: 14 1; 15 2; 16,17 3; 18 4; Univ. etc. 5 Father: 6; 7; 8; 9; X
Are you a member of the P.T.A.?	Yes 1 No 2
How many visits have you made to this child's secondary school? (re this child)	None 1; 1 2; 2 3; 3 or 4 4; over 4 5
Who used to go?	Both 1; Father 2; Mother 3; Neither 4
Did you attend any sports or concerts etc. in which he was involved?	Always 1; Often 2; Rarely 3; Never 4
How did you find out what went on at school? (Opportunities, courses, visits etc.)	Through own child 1; Through other children 2; Through the school 3; Through neighbours and friends 4; Did not 5
Did he talk much about what went on at school?	Often 1; Occasionally 2; Rarely 3; Never 4; Used to (primary) but not now. 5
Did you try to impress upon him the need to do well at school?	Not necessary 1; Yes 2; No 3

...de no...	Child's name ...
Has it ever been necessary to restrict (a) his time watching TV or listening to radio (b) his friendships?	Never 1 Never 5 Rarely 2 Rarely 6 Occasionally 3 Occasionally 7 Frequently 4 Frequently 8
Was he ever a member of an organisation? (Scouts etc.) If YES Did he attend regularly?	Yes Namely. . 1 No 2 Yes 3 No 4
Is he a member of the (public) library? If YES At what age did he join? Does he use the library often?	Yes 1 No 2 Under 8 3 8 - 11 4 Over 11 5
Did he have a regular order for any magazine?	Yes 1 No 2 Namely
Has he had any lessons outside the normal school course? (piano etc.)	Yes 1 No 2 Namely ..
Did he go to any school before the age of 5 years? If YES. Was this necessary because you were at work?	Yes 1 No 2 Yes, at work 3 No, not at work 4
Before he went to school did anyone spend time reading him stories?	Mainly father 1 Mainly mother 2 Mainly older child 3 No 4
Here is a list of possible sources of advice. Could you say which 4 sources proved most helpful to you in the pre-school years, and put them in order.	Neighbours, Friends 1 Relative, namely . . . 2 Doctor 3 Health visitor, clinic 4 Religious (priest, organisation) 5 Radio and/or TV. 6 Books 7 Magazines 8 Own Experience 9

de no.. Child's name .

. Did you have ~~any~~ any relative living with you during the pre-school period?	Yes 1 No 2 Namely . . 3
. Can I ask if you had any previous experience of bringing up children prior to this child?	Yes Professional training 1 Practical experience 2 Younger children in own childhood 3 Own child/ren 4 No 5
. Are there any particular interests this child shares with both of you?	Yes 1 No 2 Namely . . 3
. Are there any things he does exclusively with his father?	Yes 1 No 2 Namely .
. Does father's work abnormally restrict his time with the children?	Yes . Late home 1 Shift work 2 Sometimes away 24 hrs. 3 Works at W/E 4 Not living at home 5 other 6 No 7
How would you describe your own health, your husband's	Mother / Father 1 Excellent 5 2 Good 6 3 Fair 7 4 Poor 8
How would you describe your own childhood?	Happy 1 Unhappy 2
Were you glad to leave school?	Yes 1 No 2

e no..... .... Child's name .

If you had the task of bringing up this child again, are there any changes you would make?

What have been the main differences between your own education and your child's, which have been difficult to understand?

What should education provide?

son interviewed.

Mother 1 Stepmother 3
Father 2 Stepfather 4
Both 5

ments:

Le no. Child's name .

Type of house	Detached 1 Council 4 Semi-detached 2 Flat 5 Terrace 3 Other. 6
District	Estate, Private 1 Individual Good 3 Estate, Council 2 " Poor 4
Culture in home	Good 1 Average 2 Poor 3
Attitude to interview	Very cooperative 1 Tolerant 3 Cooperative 2 Antagonistic 4
Agreement between mother and father on upbringing of child	Marked disagreement 1 Compromise 3 Some disagreement 2 Complete agreement 4
Tidiness and state of repair of home	Very tidy 1 Some untidiness 3 Tidy 2 Very untidy 4
Involvement of father in upbringing	Constant help 1 rare help 3 Some help 2 no help 4
Ability of parents to cope with child	can cope without advice 1 can cope welcomes advice 2 cannot cope, welcomes advice 3 cannot cope, not welcome advice 4
Attitude to Education.	active to improve 1 sympathetic 2 passive acceptance 3 uninterested 4 actively hostile 5

	009	017	018	019	024	028	029	030	160	169	170	174	175
6	1	0	1	0	0	0	1	0	0	1	1	0	0
4	0	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	0	1	1	1	1	0
2	0	0	1	0	1	1	1	1	1	1	1	1	0
1	1	1	1	1	1	1	1	1	0	1	1	1	0
-	1	1	1	0	1	1	1	0	0	1	1	1	1
11	1	1	1	1	1	1	0	1	0	1	1	1	1
16	1	1	0	1	1	1	0	1	0	0	1	1	1

Scores for Agreement Analysis

Two Job Sub-Sample

	45	53	71	86	88	112	115	118	120	121	187	191	195
F	1	1	1	1	1	0	1	0	0	1	1	1	1
G	0	0	0	0	0	0	0	0	0	0	0	0	0
H	0	0	1	1	0	0	0	0	0	0	0	1	0
I	1	0	1	1	1	0	0	0	0	0	0	1	0
K	0	0	0	0	0	0	0	0	0	0	0	0	0
M	0	0	1	1	0	0	0	0	1	0	0	1	0
N	0	1	0	0	0	0	0	0	0	0	0	0	0
Q	0	0	0	1	0	0	0	1	0	1	0	0	1
R	0	1	1	1	0	0	0	0	0	0	0	0	0
S	0	0	0	1	0	0	0	0	0	0	0	0	0
T	0	0	0	1	1	0	0	0	0	0	0	0	0
U	0	0	0	0	0	1	0	0	1	0	0	0	0
W	0	0	0	0	1	0	0	1	1	0	0	0	0
Y	1	1	0	0	0	0	0	0	0	0	0	0	0
A	1	1	1	1	1	1	0	1	1	1	1	1	1
E	0	1	1	1	1	1	1	1	0	0	1	1	0
I	0	1	0	1	0	0	0	1	0	0	0	1	0
-	0	0	1	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	1	1	0	0	0	0
2	0	0	1	0	0	0	0	0	0	0	0	0	0
4	0	0	1	0	0	0	0	0	0	0	0	0	0

	45	53	71	86	88	112	115	118	120	121	187	191	195
6	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	1	1	0	0	1	1	1	1	0	1	1
9	0	0	0	1	1	1	0	0	0	0	0	0	1
10	0	0	1	0	1	0	0	0	0	0	0	1	1
12	1	1	1	0	1	0	1	1	0	0	0	1	1
14	0	0	0	0	1	1	0	1	0	0	0	1	0
16	0	0	1	1	1	0	1	1	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0
-	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	1	0	1	1	1	1	1	0	1	0	1	0
28	0	0	0	0	0	0	0	0	0	0	0	1	0
26	0	1	0	0	0	1	0	0	0	0	1	0	0
23	0	1	1	0	0	0	0	0	0	0	0	1	1
22	0	0	1	0	0	0	0	0	0	0	0	0	1
20	1	0	0	0	0	0	0	0	0	0	1	0	1
19	1	1	1	0	1	0	0	0	0	1	0	0	1
17	0	0	1	1	0	0	0	0	0	0	0	0	1
16	0	1	0	0	0	0	1	1	1	0	0	0	0
15	0	1	1	1	1	1	1	0	0	0	0	1	1
14	0	0	0	0	0	0	0	0	0	0	0	1	0
12	0	0	0	1	0	1	0	0	1	0	0	0	0
11	0	1	1	1	1	0	0	1	0	1	1	1	0
10	1	0	1	1	1	0	0	1	1	1	0	0	1
8	0	1	1	0	0	0	0	1	1	0	1	1	0

	45	53	71	86	88	112	115	118	120	121	187	191	195
3	1	1	1	1	1	0	1	0	0	0	1	1	1
2	0	1	1	0	1	1	0	1	0	1	0	1	0
1	0	0	1	1	0	0	1	0	0	0	0	0	0
-	1	0	0	1	0	0	0	1	1	0	0	0	1
11	1	0	1	1	0	0	0	0	0	1	0	0	1
16	1	0	0	0	1	0	0	0	0	1	0	0	0
6	0	1	1	1	0	0	0	1	0	0	1	0	1
4	0	1	1	1	1	0	0	0	0	0	0	1	0

APPENDIX IX

C D E F G H I J K L M Mc N O P Q R S T U V W X Y Z A E I O U

I | R | M | COMPLETE FAM. | STILL AT SCHL. | 1 YES | 2:1 | 2:2 | 3:3 | 3:2 | 4:1 | 4:4,5 | No. of 5. SIBS | 6: NOT 6 | 6: 4,2,3 | 7: MOTH | : FATH | 8:1 | 8 USED TR | 9: 5 | 9: 3,4 | 10:1 | 10:2 | 10: NOT 4 | 12:1,3 | 13:1 | 13:2

STEP / F. ONLY / BOTH — INT.

CODE No.

11+ GROUP

V.R.	
ARITH.	11+
ENG.	
TOTAL	

LENGTH OF INTER.

REVISED I.D

V.R.	
A+E / 2	REVISED
12+	
14+	

AGE OF PARENTS

SEX 96

S.P.F.

FACTORS

MOT
EMO. I
EMO. II
CULT.
MAT.
TOTAL

TYPE OF HOUSE

DISTRICT

CULTURE

ATT. TO INTERVIEW

HARMONY IN HOME

TIDINESS

FATHER INVOLVED

COPE

ATT. TO EDUC.

1:1,2 | 28: FATH | 28: MOTH | 27: 1,2 | NOT | 25: TIME | 1 | 24: 1,2 | 24: NOT 5 | 23:2 | 22:3-8 | 3 | 21:1 | YES | 20:1 | 19:1 | 18: TIME | 1 | USE | 4 | 17: 3 | 1 | :3 | UNIF | 16:1 | 15 | ENG. | TV | 14:1

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31