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ABSTRACT

Modeled on a similar study conducted in Scotland, this study reports on preschool children in two cities of England's Midlands Region (Birmingham and Coventry). Subjects had special needs including physical, mental, behavioral, speech, and second language problems; in addition, some were gifted. A survey identified children with special needs in ordinary preschool units such as nursery classes, day nurseries, and play groups. Structured interviews with the persons in charge of ordinary units and units attached to special schools yielded data on staffing patterns and training; parent involvement; accommodations; involvement of outside professionals; records kept on each child; and nursery policies regarding admissions, catchment area, and waiting lists. Two observational studies were conducted between October 1979 and December 1981: (1) timed sample structured observations of 17 children with special needs in ordinary preschools; and (2) observations of the communication of seven children, involving a language test and transcriptions of videotape recordings. Interviews with the parents of 13 of the 17 children with special needs focused on parents' choice of preschool unit, special provisions for their child in the preschool, and attitudes toward special preschool units. The final chapter summmarizes results of the research and discusses implications for educational policy. (CB)

UNIVERSITY OF BIRMINGHAM

PRE-SCHOOL EDUCATION AND CHILDREN WITH SPECIAL NEEDS

Report of a D.E.S. funded project

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PRE-SCHOOL EDUCATION AND CHILDREN WITH SPECIAL NEEDS

A report of the findings of a research funded by the Department of Education and Science Oct. 1979 - Dec. 1981.

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FOREWORD

The research reported here was undertaken in the West Midlands between October 1979 and December 1981 financed by the Department of Education and Science with a grant of £36,332. It was directed by Professor Margaret M. Clark, Head of the Department of Educational Psychology, University of Birmingham with Mrs Brenda Robson as Research Associate, Mrs Mary Browning as a part-time research associate and Dr William Cheyne, Senior Lecturer in the University of Strathclyde as statistical consultant. Dr Cheyne worked with Professor Clark in a previous related study funded by D.E.S. while they were both on the staff of the University of Strathclyde.

The authors wish to express their appreciation to all those who have contributed in any way during the course of the research.

Thanks are due to the Department of Education and Science which has provided the main financial support and to the University of Birmingham which has borne hidden costs in permitting the research to be based in the University and Professor Clark to direct it. The authors are grateful to Birmingham and Coventry for agreeing to participate in the research and in particular to Mr Peter Lee and Mr John Endall, Assistant Education Officers, Birmingham, and Mr Terry Bond, Assistant Director of Education, Coventry, to Mr Ivor Bell, District Manager, Birmingham Social Services Department, Mr Arthur Ball, Principal Officer, Supportive Services, and Mrs Judith Mobley, Co-ordinator of Services for Pre-school Children, Coventry Social Services Department for their assistance in obtaining the necessary access to pre-school units.

The research workers are grateful to Mr Martin Powell, Senior Educational Psychologist and his team at Lozells Child Advisory and Psychological Services, Birmingham, for their advice in modifying the interview schedules which had been used in the Scottish Study to ensure their appropriateness for the new context. The co-operation of Mrs Iris Kukoda and her staff of the N.S.P.C.C. Playgroup in Birmingham is gratefully acknowledged in permitting the observation schedules to be tested in the playgroup. Professor Marion Blank gave guidance on the analysis of the radio microphone transcripts which was greatly appreciated. She also demonstrated the use of her language test.

Mrs. Rosemary Peacocke, H.M.I. gave support and encouragement throughout the study which is gratefully acknowledged. Mrs. Doria Jones assisted with the typing of the final report.

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The views expressed in the report are those of the authors and do not necessarily reflect those of the Department of Education and Science.

CHAPTER 1.

Introduction

The following chapters contain the report of a study of 'Pre-School Education and Children with Special Needs' undertaken in the West Midlands over the period October 1979 - December 1981. The study which was funded by the Department of Education and Science was directed by Professor Margaret M. Clark of the University of Birmingham with Mrs. Brenda Robson as full-time research worker, Mrs. Mary Browning as part-time research worker and Dr. William Cheyne of the University of Strathclyde as statistical consultant. The research was a development from a study in Scotland also directed by Professor Clark which took place in 1976 - 77, financed by the Department of Education and Science, to provide evidence for the Warnock Committee of Enquiry into the Education of Handicapped Children and Young People.

The Scottish study included a survey of the incidence of children perceived as handicapped or exceptional attending ordinary pre-school units; interviews of those in charge of the pre-school units on topics of relevance to the placement of handicapped children in ordinary units; observation of selected handicapped children compared in each instance with a control child attending the same unit. Parental interviews were also undertaken and interviews of some of the teachers of reception classes to which handicapped children from these pre-school units had been admitted. The preliminary work for the Scottish study took place in Central Region and the main study in Grampian Region where all nursery schools and classes, all day nurseries and selected playgroups were included. The results of the study contained in a report submitted to the Department of Education and Science entitled Pre-School Education and Handicapped Children are referred to in the Warnock Report Special Educational Needs (HMSO 1978). A slightly abridged version of the research report, amended to include reference where relevant to the Warnock Report, was included in a book published in 1979 and edited by Professor Clark and Dr. Cheyne entitled Studies in Pre-School Education. Readers interested in making a detailed comparison of the Scottish and the current studies are referred to that source for further details of the Scottish study.

The present research in the West Midlands has included, as did the Scottish study, an estimate of the incidence of children in ordinary pre-school units perceived as having handicapping conditions or as exceptional, and interviews of those in charge of the units. The interview schedule used here and the categorisation of handicaps were both based on the earlier study with appropriate amendments. In the current study which was of longer duration where it was possible to build on the experience of the earlier research, greater emphasis has been placed on observation in the pre-school units. Additionally, in view of the evidence of communication difficulties as the major type of handicapping condition reported by the staff in the ordinary units, it was decided to extend the research to include a study of samples of language obtained by use of radio microphones.

There are three important differences in the two studies, that in Scotland and the more recent study in the West Midlands, which must be considered when making comparisons between the results. The first difference is that the Scottish study took place 'pre' Warnock while the West Midlands study took place in the period immediately following the publication of the Warnock Report, a time when children with special needs were a focus of much discussion. The provision recommended by the Warnock Committee for children with special needs was in ordinary pre-school units where possible, and the pre-school years were singled out for particular attention in the Report. In the Scottish study the term handicapped was used extensively to define the groups of children under discussion, that term being interpreted within the existing framework of legislation and 'categories of handicap'. In the present study in the post Warnock period the term 'special needs' has been substituted for handicapped in keeping with the views expressed in the report. It is, however, very difficult to avoid ambiguity when using the expression 'special needs' and particularly when making comparisons between the two studies. This is particularly apparent when faced in the West Midlands with a large population of children who are certainly perceived as 'having special needs', children for whom English is their second language, who were not considered within the remit of the Warnock Report. In the present study a separate section has been devoted to such children in order to clarify the issues, as well as to facilitate comparisons with the Scottish study. Clearly when considering the problems faced by staff who have children in their unit suffering from severe handicapping conditions, it would be quite misleading to over-

look the fact that such a unit may have, in addition, a very large proportion of children for whom one problem, and not necessarily the only problem, is that English is a second language, and one in which they may not yet be able to communicate.

A second major difference between the two studies is that the Scottish study took place in Grampian Region and Central Region, both of which are predominantly rural, while the study in the West Midlands was in Birmingham and Coventry, urban areas with a high density of population. Not only is the extent of pre-school provision crucial in determining whether a child will attend a pre-school unit, and which unit will be selected, but also the geographical distribution of such units and the distance a young child would require to travel to attend a particular unit. While part of Grampian Region includes Aberdeen, a city where provision may be available sufficiently close to a child's home to make choice possible, in much of the region choice is limited by, and placement even determined by, distance. It was no accident that in the second study rather different areas were chosen. In comparisons, attention will be drawn to instances where constraints on choice of placement may result from geographical features; where facilities are more readily available or sharing of resources developed as a result of geographical features.

The third difference between the two studies concerns the age of children attending pre-school facilities. In the Scottish research areas, there was one intake of children each year into reception classes of primary schools, these children being four and a half to five and a half years of age on entry. Coventry also had one intake, admitting children who would reach five years of age during that school year. In Birmingham, there were three entry dates with children admitted to infant classes at the beginning of the term in which they would be five years old.

In the current study, as a result of the finding that most children identified by staff in ordinary pre-school units were only mildly handicapped or had communication problems, it was felt essential to include a study of all the available nursery units attached to special schools which admitted pre-school children to determine the range of children in attendance in such units. Each such unit was, therefore, visited and a modified interview of the person in charge of the class was undertaken. Information was obtained on the range and types of handicapping conditions from which the children suffered and the proportion attending who were under five years of age.

A number of issues related to pre-school education are considered in depth in the book referred to above (Studies in Pre-School Education eds. Clark and Cheyne) and they will, therefore, not be discussed in detail here. It seems important, however, to set the scene by a brief consideration of some of these issues as a context for the report of the present study.

With more sophisticated and earlier screening for a number of handicaps, it may well be possible to identify children with a wider range of handicapping conditions at the pre-school stage. The population identified at that stage as having special needs as a result of handicapping conditions will, however, be rather different from that between say seven and sixteen years of age where children variously described as mildly mentally handicapped, ESN(M) or with mild learning difficulties will make up by far the greatest proportion of those with special needs. This is a group of children not readily identified at the pre-school stage although some may be among those regarded before school age as having communication problems - or as socially disadvantaged. They are in general, children who fail to meet the demands of the educational setting, or in some instances whose needs are not met adequately by particular educational establishments. For children who are identified pre-school as suffering from handicapping conditions, it is important to distinguish the ways in which pre-school education is seen as having a particular contribution to make to their development beyond that which might be expected for any child from such attendance; only then can an estimate be made of the extent to which their needs are or could be met by different types of provision. For some children the aim may be to ensure that they do receive pre-school education, even where resources are scarce, in which case priority admission to

otherwise 'ordinary' units may be the aim without thereafter any requirement of special provision or support within the unit. In which case some monitoring of children so admitted might legitimately be all that could be expected. It should be made clear to those in charge of the units, however, that priority admission was all that was expected, and if after admission such a child is found to require more than normal attention, the staff would be entitled to have the placement reviewed.

There are other children with handicapping conditions of a kind where it may be felt that specialist support and also specialised equipment may be required at an early stage to enable them to develop as normally as possible. Some children who are deaf or blind from birth might well belong to such a group. For some children then, once their handicap or handicaps have been identified, the decision may be where best to place them in order to ensure that they do have access to necessary specialist services. In an area where these are mainly based on special schools or special units, where there are no or few visiting specialists or units attached to ordinary schools, or equipment which can be placed in ordinary schools, it could well be denying rather than meeting the needs of particular pre-school children were they to be placed in an ordinary pre-school unit. It is a separate issue to determine what effects on other aspects of their development may be caused by the segregation from ordinary children at such an early age and whether the advantages outweigh any disadvantages. Again, with children for whom one of their handicaps is lack of physical mobility such mundane matters as whether the organisation of the particular authority would permit transport to an ordinary unit, and the physical layout of the nearby ordinary unit, must play a part in decisions about particular children. Where transport is not provided for attendance at an ordinary unit, a child with physical handicaps may be deprived of pre-school education unless admitted to a special unit - unless parents are themselves able to provide transport.

It is important to distinguish between decisions about the placement of particular children at particular points in time and the determination of policy within an area with regard to children with special needs. The range of children and the actual children found in the various pre-school units in the present study were not only the

result of policy within the authorities, but in many instances the result of decisions made with knowledge of matters such as the overcrowded nature of a particular neighbourhood unit, lack of transport, lack of support services to a particular unit, an immediately available vacancy in a special unit, knowledge of expertise on the part of the person in charge of a particular 'ordinary' unit or a good relationship between a variety of support staff and that unit. Sometimes the placement remains after the features influencing the decision have changed. Decisions with regard to range and type of special education and pre-school education are like those concerning other aspects of education, influenced by both national and local policy and by the previously available pattern in an area. They are, in addition, influenced by financial considerations. While special educational provision tends to be protected to some extent from the first and the most severe of the cuts resulting from financial constraints, pre-school education is probably one of the most vulnerable, lying as it does outside the mandatory provision by a local authority.

Ten years ago it was anticipated that by 1983-84 pre-school education would be available for all children aged three or four years of age whose parents wished them to attend. The extent of provision in particular areas reflects the speed with which particular authorities were moving towards this, and, the degree of their commitment to pre-school education while under pressure to cut spending, at a time when to continue pre-school provision must be at the cost of some other sector of education.

When the present study was being planned shortly after the publication of the Warnock Report, it still seemed possible that there would continue to be expansion in pre-school education and developments in both the pre- and in-service training of staff. By the time the study was commencing, authorities were already facing decisions as to the extent to which they could even maintain their existing pre-school provision. Because of the way in which the development had taken place up to that time, there were wide variations in the extent of the provision available in nursery schools and classes, not only between authorities, but also within an authority. Priority for the opening of new nursery schools and classes might have been influenced

by the existence in particular areas of thriving playgroups or might have been given to, for example, areas of urban renewal. It is important to stress that Birmingham and Coventry, by their willingness to take part in a study on pre-school education in 1979, were reflecting a commitment to that stage of education, greater probably than many local authorities. Thus any limitations or deficits in their provision are probably less than in many other areas. Many authorities would, in 1979, not have agreed to take part in such a study - or were already in process of considering reduction in pre-school provision.

Before reporting the findings of this current study and considering general implications, it is important to emphasise the context in which the recommendations of the Warnock Committee with regard to pre-school education were made and to appreciate how very different the situation is now from that envisaged by the committee as a context for the implementation of its recommendations. The Warnock Report, Special Educational Needs (HMSO 1978) emphasised the benefits of nursery education on a full or part-time basis in nursery schools and classes for children with special needs. It was stressed, however, that it was neither regarded as practicable nor desirable to seek to achieve this "through a policy of positive discrimination in favour of those with disabilities or significant difficulties in the admission of children to nursery schools or classes" (p. 87). It recommended that the provision for all children be "substantially increased as soon as possible." Special nursery classes and units were recommended for young children with "more severe and complex difficulties" (p. 88). In encouraging admission where possible to ordinary schools and classes the Warnock Committee was not thus anticipating that there would be a high proportion of any such children in a particular unit, but rather that staff be encouraged to accept rather than reject children with special needs. An important role was still envisaged for specialised pre-school units for some children. Equally important in the Warnock Report was the stress on the need to consider staff attitudes and parental choice. Furthermore, it was stressed that a number of conditions are necessary if ordinary nursery schools and classes are to make satisfactory provision for children with a variety of needs including the following :

> First, the attitudes of the staff and the parents of all the children must be favourable.

Secondly, the accommodation and equipment must be suitable.

Thirdly, staffing ratios for non-teaching as well as teaching staff must be generous.

Fourthly, the implications for all the children of accepting children with different disabilities and difficulties must be carefully thought out by all concerned.

Fifthly, teachers must have regular advice and information from specialist and advisory staff, in particular from members of the proposed special education advisory and support services, educational psychologists, speech therapists, physiotherapists, doctors and nurses (p. 87).

It is important to review the extent to which the recommendations of the Warnock Committee with regard to integration can be met with existing staffing and resources and in what key areas further developments would be essential in order that the special needs of children with handicapping conditions can be met in ordinary units. The information gathered, and insights gained in the course of the present research should be of value in determining priorities in the pre-school provision for children with special needs - and indeed also for those not so perceived.

CHAPTER 2.

The Research Areas and their Pre-School Provision

THE RESEARCH AREAS

The West Midlands lie in the heart of England, 100 miles north of London. Birmingham is the largest conurbation in the region, with a total population of just over one million. The research was carried out in Birmingham and in Coventry, a city 20 miles east of Birmingham, with a population of about 335,000.

Although Coventry is one third the size of Birmingham, the two cities have much in common. Both were severely damaged by bombing in World War II. In a single night Coventry suffered the most concentrated air attack ever experienced by a British city. The city centres of both cities have been gradually rebuilt, resulting in compact, traffic-free shopping and business areas with complex road systems going over, under and around them.

While central re-development followed a similar pattern, the cities adopted different housing policies. Birmingham, with its large and steadily rising population, had limited space for housing development and so replaced old terraces and villas with multi-storey flats. While improving living conditions, such housing policies bring with them problems of isolation, lack of recreational and social facilities and an inadequate environment for young children. In many areas, high rise flats and housing schemes were built alongside existing factories, gas works, electricity generating stations and foundries, making living conditions even less attractive. Accommodation becomes more spacious as one moves out of the city centre towards areas of owner-occupied housing. The physical environment is much improved but that does not mean absence of social problems. Due to the current recession, unemployment and reduced working hours are imposing considerable financial strain on families with commitments which they can no longer meet.

Coventry had much more space on which to build and so multi-storey flats were not included in the housing programme. Expansive housing schemes were built instead, with many open areas, green belts and parks. Because wartime devastation had been so thorough, many of

Coventry's factories had been destroyed. The positive outcome of this was the rebuilding of factories and warehouses on the periphery of the city within industrial estates. Unfortunately, social and recreational facilities were not developed at the same rapid pace as housing construction. As in Birmingham, feelings of isolation and boredom created many social problems in these housing schemes, made worse by rising unemployment resulting from the decline in the car industry, Coventry's main source of employment.

The total school population of Birmingham in 1981 was 192,000 with a total intake to infant and primary school of 12,066 children. 3,504 children entered infant and primary schools in Coventry in September 1981, at which time the total school population was 59,740. As discussed in chapter one, the intake into reception classes in Coventry's infant and primary schools is of four year olds whereas children normally commence attendance at infant school in Birmingham somewhat later.

The West Midlands is a multi-racial and multi-cultural area and the pattern of immigration into Birmingham and Coventry was similar. Many West Indians arrived in the 1950s, attracted by the prospect of employment in the West Midlands. They were followed by Asian families, many of whom were compelled to leave the Punjab and Bangladesh because of war and political unrest. They too sought employment as well as political stability and peace. The Asians brought with them 12 major languages, 8 major religions and 4 major castes (Lobo 1978). The problems facing the Education and Social Services Departments were, and remain, highly complex. Most of the pre-school children of ethnic minority groups are now second or third generation immigrants.

THE RESEARCH SAMPLE

As indicated previously, the plan was, in the earlier stages, to replicate the study undertaken in Grampian Region in Scotland including interviews of those in charge of the various pre-school units and obtaining information on the incidence of children attending who were perceived as having special needs or suffering from handicapping conditions. It was also important to ensure within the two year time scale of the research, that adequate time was available for the observational studies. The co-operation of Birmingham and Coventry in the research having been secured, it was, therefore, necessary to decide

on the precise sample of units to be included. In Coventry it was feasible, as it had been in Grampian Region, to include all nursery schools and classes, all day nurseries and a sample of playgroups. This was not possible within the resources in a city the size of Birmingham. A choice had to be made either of sampling units from the whole city or of selecting a particular area of the city and including all available units. The latter choice was made as it was felt that the nature of the study made it more appropriate to have a fuller picture of available alternative provision within given areas. It was also possible to enlist the necessary co-operation of a range of professionals in tracking the various pre-school units. The areas selected in Birmingham were the educational divisions or consortia of Handsworth, Perry Barr and Aston, which overlap considerably with Social Services West District (see figure 1). In 1981 the total school population of Handsworth, Perry Barr and Aston was 53,992 of which 2,522 children entered reception classes in infant and primary schools. All nursery schools and classes, day nurseries and playgroups in these consortia were included in the study.

For access to day nurseries and playgroups it was necessary to obtain permission from the relevant Social Services Departments in addition to the Education Departments whose permission was sought for approaches to nursery schools and classes. Additionally, in both cities, all special schools with nursery classes were included at a later stage.

BIRMINGHAM PRE-SCHOOL UNITS

Nearly one quarter of all children attending pre-school units in Birmingham were in the units in the research area. This includes somewhat different proportions of those in attendance at different types of provision as may be seen from table 1 . While about one third of the nursery school population is in the research area and one quarter of those attending nursery classes, almost half of the day nursery

TABLE 1

TOTAL NUMBER OF CHILDREN ATTENDING EACH TYPE OF PRE-SCHOOL UNIT IN THE RESEARCH AREA AND THE CITY OF BIRMINGHAM AS A WHOLE

Type of Unit	No. of Children Attending Research Area	Birmingham	% of Children
County Nursery Schools	686	2128	32.2
County Primary and J.I. Nursery Classes	922	4189	22.0
Day Nurseries	724	1519	47.7
Playgroups	640	6117	10.5
TOTAL	2972	13953	21.3

% is of children in the research area compared with total in the city. City statistics relate to 1980-1981.

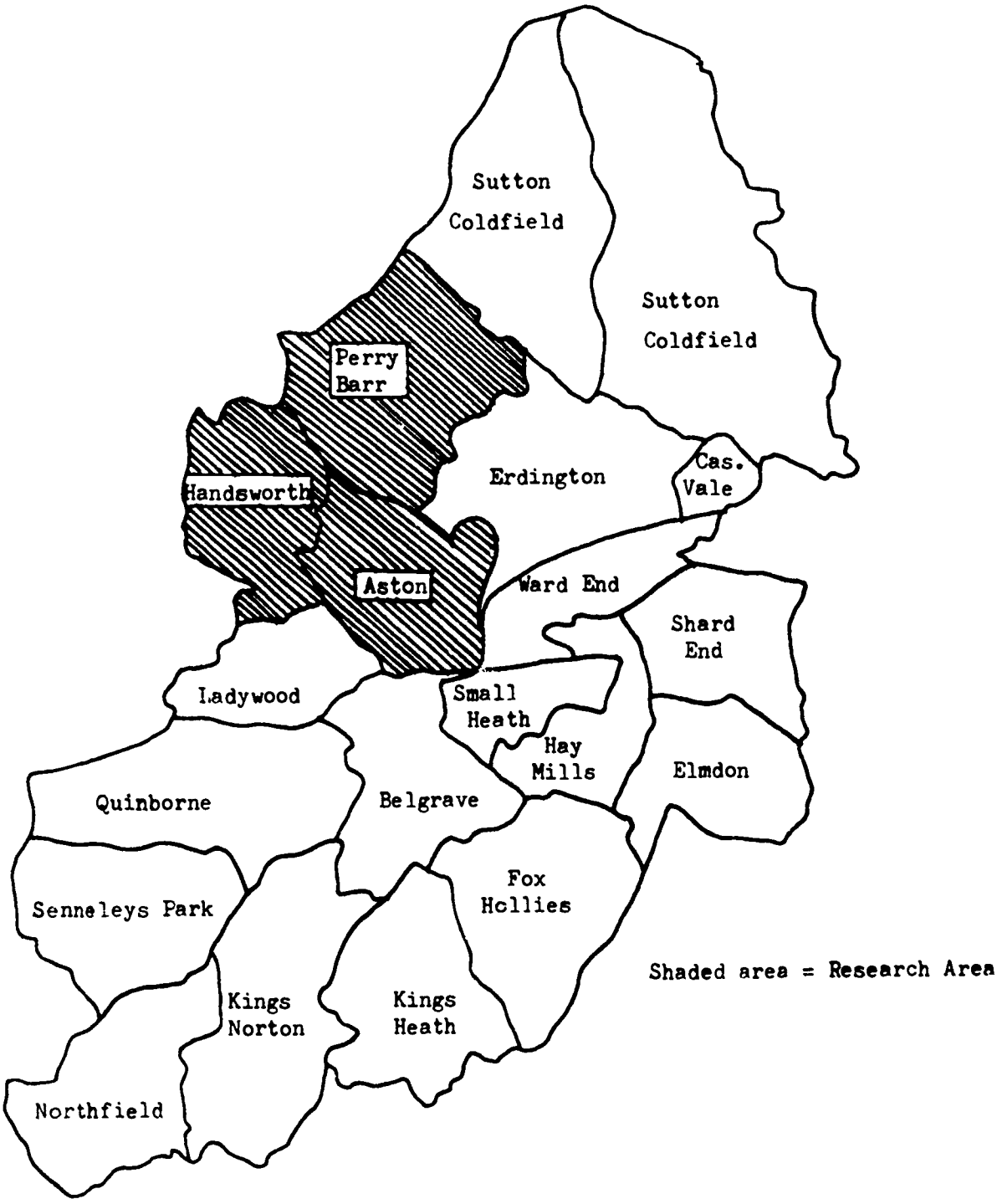


FIGURE 1

MAP OF BIRMINGHAM EDUCATION CONSORTIA SHOWING RESEARCH AREA

population is in the research area. Almost half of the children attending pre-school units are, however, in playgroups in Birmingham although one tenth of these children are in the research area of Birmingham. Additionally, all special schools with nursery units in Birmingham were included whether or not they were in the research area since it was anticipated that some children with special needs might be attending special units somewhat further afield as transport would be available for such placements.

All 55 ordinary pre-school units within the research area in Birmingham were included in the study. Sixty one infant/junior and primary schools received children from these units. Table 2 shows relative numbers of children in the nursery schools and classes, day nurseries and playgroups in the research area of Birmingham.

TABLE 2

NUMBER OF CHILDREN ATTENDING PART-TIME AND FULL-TIME IN EACH TYPE OF UNIT IN THE RESEARCH AREA OF BIRMINGHAM

PRE-SCHOOL UNITS		NUMBER OF CHILDREN				
Type	No.	Full-Time	Part-Time	Boys	Girls	Total
Nursery Schools	9	464	222	350	336	686
Nursery Classes	15	494	428	443	479	922
Day Nurseries	12	667	57	378	346	724
Playgroups	19	2	638	335	305	640
TOTAL	55	1627	1345	1506	1466	2972

COVENTRY PRE-SCHOOL UNITS

The city of Coventry has 126 ordinary primary schools, 26 of which have a nursery class attached. All of these nursery classes were included in the study. The city's only nursery school was also included (a second nursery school was about to close as the research began and so was excluded from the sample). All 9 day nurseries in the city were included. Because of the large number of playgroups in Coventry (98 at the time of the survey) a sample of 13 was included in the study, selected at random from all areas of the city. Table 3 shows the number of full-time and part-time children in the nursery school and classes, day nurseries and playgroups in the Coventry sample.

TABLE 3

NUMBER OF CHILDREN ATTENDING PART-TIME AND FULL-TIME IN EACH TYPE OF UNIT IN COVENTRY

PRE-SCHOOL UNITS		NUMBER OF CHILDREN				
Type	No.	Full-Time	Part-Time	Boys	Girls	Total
Nursery School	1	63	27	54	36	90
Nursery Classes	26	393	1127	742	778	1520
Day Nurseries	9	524	12	265	271	536
Playgroups	13	-	487	263	224	487
Total	49	980	1653	1324	1309	2633

BACKGROUND INFORMATION RELATING TO PRE-SCHOOL UNITS IN BIRMINGHAM AND COVENTRY

The pre-school units in Birmingham and Coventry were very similar and so they will be discussed together. Where interesting differences were found, these will be noted.

Nursery Schools

Approximately one half of the children in nursery schools were in full-time attendance. Those units, functioning independently of local schools, were in the charge of a headteacher assisted by teachers and nursery nurses. Nursery schools ranged in size from 40 place units to 114 place units, with a staff/child ratio of approximately 1:10. The headteacher is included as a member of the teaching staff, although she is likely to spend part of the day carrying out administrative duties and talking to parents. Units generally had equal numbers of teachers and nursery nurses.

In Birmingham the accommodation ranged from modern, purpose-built units in the inner ring to older but comfortable buildings in the outer areas. The exception was a nursery school housed in a former infant/junior school, now due for demolition. The Coventry nursery school was housed in a large, old building close to the city centre.

Nursery Classes

14 of the 61 infant/junior and primary schools in the research area of Birmingham had nursery classes attached. One of these schools had two nursery classes, each with a teacher-in-charge and they were

treated as two separate units for the purposes of interviewing. None of the primary schools in Coventry had more than one nursery class attached and so the 26 nursery classes visited were in 26 different schools.

Nursery classes in Birmingham and Coventry ranged in size from 24 place units to 65 place units. As in nursery schools, the staff/child ratio in nursery classes in Birmingham was approximately 1:10. In Coventry, the staff/child ratio was often less favourable, ranging from 1:10 to 1:15. In addition, the majority of children in Coventry's nursery classes attended part-time with only 25 per cent full-time attenders. This means that staff have to get to know and cope with larger numbers of children daily. For example, a 40 place unit might cater daily for 70 children if only 25 per cent attend full-time. In Birmingham, approximately one half of the children in nursery classes were full-time attenders.

The headteacher of the infant or primary school was ultimately responsible for the nursery class. Considerable variation was found, however, in the degree of autonomy experienced by the teacher of the class. This ranged from complete independence (similar in practice to a nursery school) through joint decision-making and control to schools where the headteacher played an active day to day role in the nursery class. The class teacher was assisted by one or more nursery nurses. In all classes, the teacher-in-charge was interviewed and the headteacher supplied additional information where necessary.

Many of the children move on from the nursery class to the reception class in the same school and indeed some schools give priority to nursery children likely to do so. Such continuity has obvious benefits for these children who know each other, are accustomed to the school buildings and familiar with the staff. There may be, however, difficulties for those who enter the reception class direct and also not having had experience of any pre-school provision or even for those entering from different types of pre-school unit.

Day Nurseries

The majority of children in the 21 day nurseries attended full-time, with only 5 per cent part-time. This is due to the fact that all children in the day nurseries were priority admissions for social reasons. Full-time attendance was necessary for some children whose

mothers, many of them single parents, had to work. For other children, full-time attendance was desirable since home conditions were not felt to be conducive to healthy development, physically, mentally or emotionally. Day nursery attendance frequently helped relieve the pressure on over-wrought or inadequate parents whose children might otherwise have been removed into full care in a residential nursery.

The day nurseries are the responsibility of the Social Services Department and are staffed by an officer-in-charge (called a matron in Coventry), deputies and nursery nurses. Teachers have now been introduced into day nurseries on a wide scale, especially in Birmingham, but at the time of the survey only 4 day nurseries in the research areas had the services of a teacher, 2 in Coventry and 2 in Birmingham. The day nurseries ranged in size from 42 places to 84 places, with a staff/child ratio of approximately 1:5. It must be remembered, however, that day nursery staff had to cope with a wide age range including babies and that they were obliged to work shifts in order to cover the long hours of the nursery day (usually 7.00 a.m. until 6.00 p.m.) and so the staff/child ratios are not as favourable as they may seem at first glance.

Playgroups

Playgroups are frequently opening, closing and moving premises and so numbers fluctuate almost from month to month. At the time of the survey, there were 19 playgroups in the Birmingham research area, all of which were visited. Thirteen of Coventry's 98 playgroups were included, from all areas of the city. Children attended, on average, for three half days per week and so all were part-time (except for two children who attended a playgroup in Birmingham for 5 days weekly).

Accommodation was varied and included church halls, community centres and empty school classrooms. In 14 of the 19 premises in Birmingham, one playgroup operated, catering for 13 to 45 children. The remaining 5 premises each housed two playgroups with sessions at different times for two groups of children. Each of these premises catered for between 40 and 62 children. In Coventry, playgroups visited varied in size from 20 to 58 children.

The playgroups are registered with the Social Services Department and may be inspected at any time but they function quite independently under the direction of the playgroup leader, with paid helpers and volunteer mothers. The supervisor need not be qualified but most have attended at least the core course of the Pre-School Playgroup Association.

CHAPTER 3.

Incidence of Children with Special Needs in Ordinary Pre-School Units

INTRODUCTION

A survey of all ordinary pre-school units in the research areas was carried out in order to discover the prevalence and severity of handicapping conditions in these units, as perceived by the person in charge. This survey was conducted between February and July 1980 during which time all units were visited except playgroups in Coventry. Because of a later start in commencing research in Coventry, the playgroups could not be included before the summer vacation. Rather than visit them in September when they re-opened, it was decided to wait until the same time of year as Birmingham playgroups had been visited and so they were visited in June 1981. This was in order to ensure as close comparability as possible in the length of children's attendance in the units. It was felt that in September, when so many children would recently have been admitted, the proportion of children identified might well have differed.

The person in charge of each pre-school unit was asked to provide a list of children in attendance who were perceived as having special needs. On a preliminary visit to each unit, a paper setting out the categories of special need of concern in the research was left with the person in charge. Eight categories were used and these were sub-divided and clearly defined in order to help staff to identify appropriate children. The major categories were visual, auditory and physical handicap, mental retardation, behaviour problems and speech and language difficulties. Gifted and exceptional children were also included and the final category allowed staff to identify any children with other special needs which they felt did not fit into the defined categories.

CATEGORIES OF SPECIAL NEED

Full definitions of the sub-categories are in the appendix. Some children with obvious handicapping conditions, who may have been specially referred to the unit, would be readily identified by staff. They may include children with visual and auditory handicap, physical handicap such as cerebral palsy or spina bifida, severe speech defect and Down's Syndrome. But emphasis was placed on children perceived by staff as having special needs and so the sub-categories

were devised to assist in the identification of children with suspected handicapping conditions which may not have been formally assessed and diagnosed. For example, within the category of mental handicap are children with recognised syndromes such as Down's Syndrome, children assessed as being developmentally delayed but with no medical evidence of mental handicap and thirdly children observed in the unit as being developmentally delayed but where there has been no formal assessment.

Speech and language problems are complex and may be difficult to identify. Four sub-categories were, therefore, devised to distinguish between speech defect, speech difference and language problems. Staff were also asked to identify children with communication problems as a result of using English as a second language. Children with second language problems were recorded separately thus making it possible to extract them later from the data when comparing findings from the present study with those of the Scottish study, where there were few such children.

In identifying behaviour problems, staff were asked only to consider the overt behaviour of a child and to decide whether he over-reacted, under-reacted or reacted strangely, each of these terms being clearly defined. By avoiding such labels as 'emotionally disturbed' and 'socially maladjusted' the staff were not required to make a judgement regarding the underlying cause of the behaviour problem.

Finally, giftedness was included as a category of special need. Staff were asked to identify children perceived as having superior intellectual ability, superior talent in one or more creative fields or the ability to read fluently with understanding.

PROCEDURE

On a preliminary visit to each unit a copy of the categories of special need was left with the person in charge together with instructions, forms and a completed form for guidance. The person in charge was asked to supply the child's name, category of need, date of birth and admission to the unit and whether full or part-time. If a child fitted into more than one category, each category was noted and space provided for additional comments. The completed forms were collected a week later when the research worker returned

to conduct the structured interview. This gave the person in charge time to consult her staff about individual children if she wished and to gather the necessary information.

INCIDENCE OF CHILDREN WITH SPECIAL NEEDS

The numbers and percentages of children identified by those in charge of the various types of pre-school units as having special needs may be seen in table 4 (Birmingham research area) and table 5 (Coventry).

TABLE 4

PERCENTAGES OF CHILDREN IDENTIFIED WITH SPECIAL NEEDS IN DIFFERENT TYPES OF UNIT IN BIRMINGHAM RESEARCH AREA

	Nursery Schools/ Classes		Playgroups		Day Nurseries	
	No.	%	No.	%	No.	%
Single Need	561	34.9	117	18.3	83	11.5
*(Only second language)	(447)	(27.8)	(100)	(15.6)	(7)	(0.9)
More than one need (one of which second language)	52 (27)	3.2 (1.7)	21 (20)	3.3 (3.1)	18 (2)	2.5 (0.3)
Gifted/talented	3	0.2	2	0.3	2	0.3
Total Identified	616	38.3	140	21.9	103	14.2
*(Second language as one need)	(474)	(29.5)	(120)	(18.8)	(9)	1.2
No. in Units	1608		640		724	
No. of Units	24		19		12	

* Second language included in percentages and also shown in brackets

In the Birmingham research area large numbers of the children in the nursery schools and classes were regarded as having special needs, 34.9 per cent with one 'need' and a further 3.2 per cent with more than one special need. Most of these children were, however, identified because of problems associated with English as a second language, 27.8 per cent with that as the only reason for identification and another 1.7 per cent with that together with another problem, in some instances, withdrawn behaviour which might have been associated with the language difficulties. In the playgroups in the Birmingham research area also a high proportion of those identified were because of problems related with English as a second language, 15.6 of 18.3 per cent identified with one need and all but one child of 3.3 per cent identified as having more than

one need. It should be noted that the Birmingham figure refers only to part of the City. It is, however, one which includes 24 nursery schools and classes and 19 playgroups. The problems with second language were particularly evident in certain units where most of the remainder of the children attending also spoke English as a second language. Were the figures for the whole of Birmingham to be considered they would no doubt be somewhat lower, but still a considerable proportion. It should be noted also that the fact that a child has problems with English affecting communication with peers and adults does not exclude the possibility of other additional handicapping conditions either physical or sensory. It is difficult to estimate the incidence of special needs excluding second language problems without in so doing lowering unjustifiably the apparent proportions of children identified, since some were identified under more than one need only one of which was second language.

TABLE 5

PERCENTAGES OF CHILDREN IDENTIFIED WITH SPECIAL NEEDS IN DIFFERENT TYPES OF UNIT IN COVENTRY

	Nursery Schools/ Classes		Playgroups Playgroups		Day Nurseries	
	No.	%	No.	%	No.	%
Single Need	233	14.5	31	6.4	72	13.4
*(Second language only)	(95)	(5.9)	(11)	(2.3)	(8)	(1.5)
More than one need	105	6.5	3	0.6	25	4.7
*(One second language)	(83)	(5.2)	(-)	(-)	(1)	(0.2)
Gifted/talented	12	0.7	2	0.4	1	0.2
Totals Identified	350	21.7	36	7.4	98	18.3
*(Second language as one need)	(178)	(11.1)	(11)	(2.3)	(9)	(1.7)
No. in Units	1610		487		536	
No. of Units	27		13		9	

* Second language included in percentages and also shown in brackets

Furthermore the staff in these units did have high proportions of such children in addition to any other categories. Where such problems were overwhelming this may have led staff to be less aware of other handicaping conditions whether language or sensory. An attempt has been made in tables 6 and 7 to indicate the proportions of children identified in the

various units with second language as the only reason excluded. Where, however, an additional need had been noted together with second language such children have been retained and listed under single need.

TABLE 6

PERCENTAGES OF CHILDREN IDENTIFIED WITH SPECIAL NEEDS IN DIFFERENT TYPES OF UNIT IN BIRMINGHAM RESEARCH AREA - SECOND LANGUAGE PROBLEMS EXCLUDED

	Nursery Schools/ Classes		Playgroups		Day Nurseries	
	No.	%	No.	%	No.	%
* Single Need	141 (27)	8.8 (1.7)	37 (20)	5.8 (3.1)	78 (2)	10.8 (0.2)
More than one need (excluding second language)	25	1.6	1	0.2	16	2.2
Gifted/talented	3	0.2	2	0.3	2	0.3
Total Identified	169	10.5	40	6.3	96	13.3
No. in Units	1608		640		724	
No. of Units	24		19		12	

* Figures in brackets are children with another identified need in addition to second language also included in percentages

TABLE 7

PERCENTAGES OF CHILDREN IDENTIFIED WITH SPECIAL NEEDS IN DIFFERENT TYPES OF UNIT IN COVENTRY ; SECOND LANGUAGE PROBLEMS EXCLUDED

	Nursery School/ Classes		Playgroups		Day Nurseries	
	No.	%	No.	%	No.	%
* Single Need	221 (79)	13.7 (4.9)	20 (-)	4.1	65 (1)	12.1 (0.2)
More than one need	22	1.4	3	0.6	24	4.5
Gifted/Talented	12 (4)	0.7 (0.2)	2	0.4	1	0.2
Totals Identified	255	15.8	25	5.1	90	16.8
No. in Units	1610		487		536	
No. of Units	27		13		9	

* Figures in brackets are children with another identified need in addition to second language also included in percentages

In table 6 (referring to Birmingham) it may be seen that 8.8 and 5.8 per cent in nursery schools and classes and playgroups respectively would be identified with one need.

In Coventry nursery schools and classes the totals identified were lower than in Birmingham, 14.5 per cent with one need (5.9 per cent with second language only) and a further 6.5 per cent with more than one need (5.2 per cent second language as one of these).* When second language as the only referring reason is excluded, however, the residual percentage in Coventry is higher 13.7 one need and 1.4 more than one (see table 7). This could either be a greater proportion of such children, or, that where not overwhelmed by second language problems staff were more aware of other problems which did exist. The types of problem will be discussed later. In the sample of playgroups in Coventry a much smaller proportion of children was identified 6.4 per cent (only 2.3 per cent with second language) and only three children with more than one need.

In the day nurseries in both areas there were few children with second language problems (see tables 4 and 5) but 10.8 and 12.1 per cent in Birmingham and Coventry respectively were identified as having one special need and a further 2.2 and 4.5 per cent more than one special need; these in addition to the social reasons for admission to a day nursery.

Very few children were identified by those in charge as suffering from sensory, mental or physical handicap; those children who were identified with physical disabilities were, on the whole, mildly handicapped. They suffered from such conditions as controlled epilepsy, mild cerebral palsy and slight deformities of the limbs. Few children in any type of unit were identified as gifted or talented.

In the following chapter there will be a more detailed consideration of the range and severity of special needs found in different types of pre-school unit; while in chapter 5 the focus will be specifically on the other types of special needs identified in those referred because of problems with English as a second language.

* These percentages are from table 5, see table 4 for the comparable Birmingham percentages.

CHAPTER 4.

Details of Children with Special Needs in Ordinary Pre-School Units

The preceding discussion of children with perceived handicapping conditions considered them within broad categories of special need. Further details will now be presented based on the sub-categories of special need into which staff placed children.

The numbers of children and types of special need in units in Birmingham and Coventry are shown in tables 8 and 9 respectively. Again, as there was only one nursery school in Coventry, it has been included with the nursery classes. From the tables it is possible to determine both the numbers of children identified within one category and, if so, which category, and those identified within more than one category. Where children were identified within more than one category, the additional category or categories can be seen in column two. Thus from the tables it is possible to assess both the total numbers of children identified and the total instances of particular categories of need, both important considerations to the staff in a unit. An example may help to clarify this. In nursery schools in Birmingham, for example (see table 8), there were two children identified as having visual handicap as their only special need (column one); a further two children had visual handicap in addition to another category of special need (column two). Thus there were four instances in which visual handicap was identified.

Second language difficulties were seen to be the predominant special need by many of the pre-school staff interviewed. Because of the magnitude of the problem, a separate chapter will be devoted to this, even although it was not within the remit of the Warnock Committee. It is essential to consider the implications of such problems within this report in order to make a realistic assessment of the context of the ordinary units in which children with special needs might be placed - and to assess the task already confronting the staff in some of the pre-school units. In the present chapter, attention will be confined to those special needs within the Warnock Committee's terms of reference; this also facilitates comparison with the Scottish study where few such children were found in the pre-school units. Where children were identified only by second language problems they have been omitted in these calculations; where, however

TABLE 8 NUMBERS OF CHILDREN AND TYPES OF SPECIAL NEED IN UNITS IN BIRMINGHAM RESEARCH AREA

	NURSERY SCHOOLS				NURSERY CLASSES				PLAYGROUPS				DAY NURSERIES			
	1	2	T	%	1	2	T	%	1	2	T	%	1	2	T	%
Visual	2	2	4	1.3	-	-	-	-	1	-	1	0.7	2	2	4	1.9
Auditory	-	1	1	-	1	3	4	0.2	-	-	-	-	7	4	11	6.8
Speech	34	19	53	21.7	24	7	31	5.2	2	2	4	1.4	21	12	33	20.4
2nd Language	50	11	61	31.8	397	16	413	86.5	100	20	120	71.4	7	2	9	6.8
Physical	15	14	29	9.6	6	3	9	1.3	4	-	4	2.9	13	5	18	12.6
Mental	3	6	9	1.9	2	4	6	0.4	1	1	2	0.7	3	6	9	2.9
Behaviour	19	13	32	12.1	7	8	15	1.5	8	19	27	5.7	24	11	35	23.3
Other	-	2	2	-	1	-	1	0.2	1	-	1	0.7	6	2	8	5.8
Gifted	1	1	2	0.6	2	-	2	0.4	2	-	2	1.4	2	-	2	1.9
More than one	33			21.0	19			4.1	21			15.0	18			17.5
TOTAL NUMBER IDENTIFIED	157			100.0	459			99.8	140			99.9	103			99.9
Number in Units	686				922				640				724			
Number of Units	9				15				19				12			
% identified	22.9%				49.8%				21.9%				14.2%			

1 = Number of Children
2 = Number of Instances of more than one category
% = Percentages given relate to children identified in each category as compared with total identified.

T = Total Instances of each category whether singly or with another category or categories

TABLE 9 NUMBERS OF CHILDREN AND TYPES OF SPECIAL NEED IN UNITS IN COVENTRY

	* NURSERY SCHOOL/CLASSES				PLAYGROUPS				DAY NURSERIES			
	1	2	T	%	1	2	T	%	1	2	T	%
Visual	3	1	4	0.9	-	-	-	-	2	2	4	2.0
Auditory	7	5	12	2.0	-	-	-	-	1	5	6	1.0
Speech	72	29	101	20.6	7	3	10	19.4	21	17	38	21.4
2nd Language	95	83	178	27.1	11	-	11	30.6	8	1	9	8.2
Physical	9	7	16	2.6	6	1	7	16.7	4	4	8	4.1
Mental	4	24	28	1.1	1	1	2	2.8	8	11	19	8.2
Behaviour	35	68	103	10.0	6	3	9	16.7	19	15	34	19.4
Gifted	12	6	18	3.4	2	-	2	5.6	1	1	2	1.0
Other	8	24	32	2.3	-	-	-	-	9	8	17	9.2
More than one	105			30.0	3			8.3	25			25.5
TOTAL NUMBER IDENTIFIED	350			100.0	36			100.1	98			100
Number in Units	1610				487				536			
Number of Units	27				13				9			
% Identified	21.7%				7.4%				18.3%			

1 = Number of children
2 = Number of instances of more than one category
% = Percentages given relate to children identified in each category as compared with total identified

T = Total instances of each category whether singly or with another category or categories
• One school included with classes

such children were identified also in other categories, such as behaviour or physical, these instances have been retained in order to avoid lowering unjustifiably the incidence of such problems in the units. The details of the additional handicapping conditions for these children are given in chapter 5. Children identified only as gifted or talented are also omitted from the calculations as these were not within the terms of reference of the Warnock Committee.

NURSERY SCHOOLS

Discussion of special needs in nursery schools relates to Birmingham only since almost 90 per cent of the children perceived as having special needs in Coventry's only nursery school had second language problems.

By far the largest category of special needs in the Birmingham nursery schools, even after the exclusion of second language problems, was speech and language difficulties affecting 50 per cent of children identified. 34 children had speech and language difficulties alone and a further 19 had additional handicapping conditions, most frequently a behaviour problem. These 53 children were divided between the sub-categories of speech defect and language problems, none being perceived as having a language difference problem. Speech defects took the form of stammers, hare lips and cleft palates and many more undefined cases where pronunciation was inadequate. Hare lips and cleft palates were generally repaired and the effect on speech negligible. Language problems were more varied. Some children could not or would not communicate. Others could communicate but with poor sentence structure and limited vocabulary. Speech therapists did not visit the nursery schools regularly but many of these children attended clinics for short speech therapy sessions once a week.

One child attending nursery school had cerebral palsy which resulted in poor control of his left arm and leg. Physiotherapy had been carried out in school over a six month period and the child was coping well. Two children were known to be epileptic and, although one was described as over-reactive, neither had had fits in recent months as a result of drug control. Several children were placed in the category of miscellaneous physical handicap but none of these cases were severe enough to require special attention from staff. They included failure to thrive, obesity, rickets and a repaired hole in the heart.

As mentioned previously, one child in nursery school had Down's Syndrome but plans were already underway to move him to a nursery class attached to a special school. He was an active, cheerful child who was toilet trained but staff found he demanded a great deal of attention because of his short concentration span. While in the nursery school he related well to other children and they seemed to accept him. Another mentally handicapped child, assessed by an educational psychologist, was awaiting transfer to a special school.

Two nursery school children were identified as having superior intellectual ability, one of them also suffering from spina bifida. Headteachers frequently stated that they found it impossible to say whether a child was gifted at pre-school level. Giftedness appeared to be equated with academic achievement which could not be assessed until the child had attempted several years of primary schooling.

30.2 per cent of those referred had behaviour problems, half of them being under-reactive. 22 children were perceived as having more than one special need. In most cases, these children came into two categories, one being speech and language difficulties and the other often being a behaviour problem. Only two children were multiply handicapped, having three or more special needs. A girl with limited speech suffered from epilepsy and had been assessed as mentally handicapped. This child was awaiting transfer to a special nursery. The second child was a four year old boy who was born with a limb deformity. Following a period with both legs in plaster, he now walks on his toes and wears Pedro boots to prevent his feet turning over. His development was always slow and regression in skills and behaviour followed a severe attack of meningitis. He now suffers epilepsy, his behaviour became unpredictable with frequent tantrums and his speech is poor. He was not a special referral to the nursery school. His mother brought him because his older siblings had attended and so the headteacher received no reports or information on his arrival. The staff coped well with him and could see progress as he recovered from the meningitis. He will, however, go to a special school at the age of five.

5.7 per cent of all children attending nursery schools and classes in Grampian Region had been referred as having special needs. Rather more children in the Birmingham nursery schools were identified as having special needs, even excluding second language problems, since

15.5 per cent were referred. If the schools and classes in Birmingham are considered together, 10.4 per cent of all children in attendance have special needs, a proportion still higher than in Scotland. The categories of special need and the severity of the handicapping condition were, however, very similar.

NURSERY CLASSES

When second language problems were included, nursery classes referred the highest percentage of children as having special needs but when these children are excluded the results are more similar to the Scottish study- 6.5 per cent of children in Birmingham's nursery classes were identified and 15.1 per cent in Coventry. Again, speech and language problems were the most prominent category accounting for approximately half of the children referred. Most of these children were under review by speech therapists and a few received weekly therapy sessions at their local clinic. One child in Birmingham was transferring to a special language unit instead of ordinary infant school.

No visually handicapped children were reported in Birmingham units while two nursery classes in Coventry each identified two children as partially sighted. Those children perceived as having auditory handicap were mainly partially hearing. The three children with the most severe hearing loss in the Coventry sample were attending an ordinary nursery class with a small hearing unit attached, staffed by a full-time teacher for the deaf.

Again, those children referred with physical handicap were only mildly disabled. They included children with epilepsy, a suspected heart defect, mild partial paralysis and two fingers missing from a left hand.

Approximately 37.3 per cent of children referred were in the category of behaviour problems. In both Birmingham and Coventry the majority of these children were under-reactive and withdrawn rather than aggressive (sometimes also with second language problems).

In Birmingham, only two children were perceived to be intellectually superior or gifted, both attending the same unit. Nursery class teachers in Coventry appeared to place children more readily into this category and identified 18, most of them described as having superior intellectual ability rather than having specific

talents or fluent reading ability. One child of Vietnamese-Chinese origin was said to have advanced remarkably in the short time that he had been in England. Another child, of German and English parents, was considered gifted because he spoke both parental languages fluently. Yet bilingual Asian children in the same unit were not perceived as gifted! The 18 'gifted' children were not distributed evenly amongst the Coventry nursery classes since one teacher alone identified 5 children in this category; two other teachers identified 3 and 4 children respectively.

DAY NURSERIES

198 children were identified in Birmingham and Coventry day nurseries as having special needs and of these, only 18 had second language difficulties. Compared with educational facilities, day nurseries contained very few Asian children.

When children with second language problems were excluded, it was found that 14.3 per cent of children in the West Midlands day nursery sample were perceived as having special needs in addition to the adverse home circumstances which had necessitated full day care. It must be borne in mind that the other 85.3 per cent of children in the day nurseries were also priority admissions via social workers, often from extremely poor home environments. 16.8 per cent of children in the Grampian Region day nurseries were identified as having special needs, similar to the findings of the present West Midlands study.

Those children identified as partially sighted and partially hearing in both Coventry and Birmingham day nurseries tended to be mildly handicapped. There were two exceptions in Birmingham. A hydrocephalic child had severe nystagmus and another partially sighted child was multiply handicapped and will be discussed later.

38.8 per cent of children identified had speech and language problems. About half of these children had additional handicapping conditions, mental retardation frequently being suspected. One four year old boy of deaf and dumb parents was beginning to say his first words after spending two years in the nursery. A five year old boy with speech and language difficulties associated with mental retardation attended a special nursery unit in a mental subnormality hospital but was cared for in a day nursery before going to the hospital in the morning and from 3.00 p.m. until 6.00 p.m.

37.2 per cent of children referred in the Birmingham sample had behaviour problems and a similar percentage (38.2) was found in Coventry. While most of the children perceived as having behaviour problems in the nursery classes were withdrawn and under-reactive, two-thirds of the perceived behaviour problems in the day nurseries were in the over-reactive, aggressive category. In many cases the officer-in-charge or matron commented that they felt the behaviour problems resulted from poor handling by parents and so they devoted time to supporting and advising mothers. Two over-reactive boys, for example, were in the care of grandmothers since their parents could not cope with them.

Only one child with Down's Syndrome was identified, in a Birmingham day nursery. 8 children identified had been assessed as mentally retarded, all having severe language problems. Indeed, one child was described by the officer-in-charge as having no expressive or receptive language. The remaining children identified as mentally handicapped had not been formally assessed as such but staff suspected retardation. These children lacked concentration, were slow in most development, failed to thrive, had language problems and so on.

While most of the children so far discussed in day nurseries were aged three years and over, 11 of the 26 children perceived as physically handicapped were aged two years and under. Staff can obviously identify certain physical disabilities in young children with confidence whereas speech and language difficulties, mental retardation and behaviour problems may not emerge until a child is three years old. Two of these young children had cerebral palsy, another had spina bifida and two had congenital heart defects. Amongst those identified aged three years and over, only one child, with cerebral palsy, had a severe handicap. He attended the Orthopaedic Hospital in Birmingham weekly for therapy and was coping well in nursery. The remaining children were mildly handicapped, suffering from epilepsy, excema and asthma.

Only two children, both in Birmingham day nurseries, were perceived as multiply handicapped, being placed in three or more categories of need. A four year old boy had a speech defect and was over-reactive but both of these problems were felt to be related to a hearing defect which had only recently been detected. The second

multiply handicapped child was more seriously debilitated. As well as sight and hearing defects, this boy had language problems and epilepsy. Not surprisingly, he was also perceived as being over-reactive and developmentally delayed. He had been attending the day nursery for 8 weeks, having been admitted a month before his third birthday. Admitted on the same day was his 18 month old sister, already assessed as partially hearing. The staff did not know how long the boy would remain in the nursery since he was already making considerable demands on staff time.

PLAYGROUPS

A smaller percentage of children in playgroups (6.1% in Birmingham and 4.7% in Coventry) were perceived as having special needs when second language problems were excluded. Children only attend a playgroup for about 6 hours a week and so it follows that playgroup leaders might not be so aware of each child's needs as would headteachers and day nursery officers. Emphasis is on free play with very little structured time. As will be discussed later, playgroup leaders' training does not stress handicap and special needs of children nor are records kept of individual children's abilities and progress. Nine playgroup leaders said they had no children with special needs attending and a further 4 identified only children with second language problems.

There were no children in any of the 32 playgroups visited with severe handicap which would adversely affect their performance in the group. The most severely handicapped child was a four year old boy with congenital bilateral cateracts. He was being cared for by his grandmother at the time of admission to the playgroup and she was finding him increasingly difficult to control. He had, however, settled down in playgroup and no special provision was being made for him, except periodic examination by the Senior Clinical Medical Officer. No decision had been made regarding his suitability for ordinary school.

There were no other children with special needs which would cause serious problems for staff. A three year old girl was very withdrawn and showing signs of autism and she was being monitored by a clinical medical officer and speech therapist. Another three year old girl was also very withdrawn and staff attributed this to the influence of an autistic brother and tense, over-worked mother. Unfortunately, because of the mother's problems, the child was a poor attender and would benefit from more time in the playgroup.

An Asian boy of 2½ years had recently joined a playgroup and the playgroup leader was concerned that his development was considerably retarded. He was not yet walking but it was hoped that he would respond to the added stimulation of the playgroup environment.

While approximately 5.4 per cent of children in the West Midlands sample of playgroups were perceived as having special needs, 10.3 per cent of children in Grampian Region playgroups had been so perceived. This discrepancy might be explained by considering the urban/rural contrast of the areas. As previously mentioned, Birmingham and Coventry are centres of industry and commerce with large, dense populations. The Education and Social Services Departments have provided ordinary pre-school units throughout the cities. There will also be a special nursery unit within five miles of any child's home, to which transport is provided. Information from a variety of sources suggests that referral agencies such as health visitors, social workers and medical assessment centres, tend to send children with special needs to educational or day care units rather than to playgroups.

Grampian Region is a rural area with only one of its five districts, Aberdeen, having a large urban population. Because the rural communities are small, nursery school and class provision is sparse. Many children live in areas with no such provision and so playgroups play an important role in providing local pre-school experience. For the pre-school child with special needs, the likelihood of a special nursery class being in the area is remote and many parents are reluctant to send their child on a long daily journey to the nearest suitable unit. And so, many severely handicapped children were found in playgroups in Grampian Region. In some cases, by keeping such children in the local community, their admission to the ordinary primary school might be encouraged.

Details of children with special needs in different types of unit have been presented. In order to complete the picture and provide the full context for considering information obtained during staff interviews, the next chapter will concern the problems of children with second language difficulties in the ordinary pre-school units.

CHAPTER 5.

Children with Second Language Problems in Ordinary Pre-School Units

INCIDENCE

One of the sub-categories of special need used in the survey related to second language problems. Staff were asked to identify children perceived by them as having markedly poor use of English in terms of vocabulary and/or sentence structure, associated with using English as a second language. Staff provided each child's name, date of birth and of admission and whether attending full-time or part-time. They also stated the child's mother tongue if known. Where a child with second language problems was perceived as having additional special needs, the relevant category or categories were noted.

Tables 8 and 9 (see pages 24 and 25) show the numbers of children perceived as having second language problems in each type of unit in relation to children perceived within the other categories of special need. In nursery schools and classes, second language problems far exceeded other categories of perceived special need, accounting for as many as 86.5 per cent of those referred in nursery classes in Birmingham. A relatively small proportion of second language problems were found in day nurseries. The percentages of children with second language difficulties attending playgroups are deceptively high and have been inflated, firstly by a small number of playgroups with large numbers of Asian children and secondly by the absence of other perceived handicapping conditions in the units.

Most of the children perceived by staff in Birmingham and Coventry units as having second language problems were of Asian origin, their families having come from India, Pakistan and Bangladesh. Very few children attending pre-school units were actually born in these countries and often one or both parents had been born and brought up in Great Britain.

ADDITIONAL HANDICAPPING CONDITIONS

Some children were perceived by staff to have special needs in addition to second language problems. Table 10 shows the additional categories of need into which children were placed. From the table it is possible to determine the numbers of children perceived as having

TABLE 10 NUMBERS OF CHILDREN WITH SECOND LANGUAGE PROBLEMS IN DIFFERENT TYPES OF UNIT IN BIRMINGHAM RESEARCH AREA AND COVENTRY

	N. SCHOOLS Birmingham		N. CLASSES Birmingham		N. SCHOOL/CLASSES Coventry		PLAYGROUPS Birmingham		PLAYGROUPS Coventry		DAY NURSERIES Birmingham		DAY NURSERIES Coventry	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2
2nd Language	50	11	397	16	95	83	100	20	11	-	7	2	8	1
Visual		-		-		-		-		-		-		-
Auditory		-		1		1		-		-		2		-
Speech		-		4		12		1		-		-		-
Physical		6		3		4		-		-		-		-
Mental		1		2		19		1		-		-		-
Behaviour		4		6		54		18		-		-		1
Other		-		-		19		-		-		-		-
Gifted		-		-		4		-		-		-		-
More than one	11		16		83		20		-		2		1	
TOTAL NUMBER IDENTIFIED	61		413		178		120		11		9		9	
Number in Units	686		922		1610		640		487		724		536	
Number of Units	9		15		27		19		13		12		9	
% Identified	8.9%		44.8%		11.1%		18.8%		2.3%		1.2%		1.7%	

1 = 2nd language as only category identified
2 = No. of instances of additional categories

% = Percentage identified is of children with 2nd language problems as compared with total attending

only second language problems in different types of pre-school unit as well as the numbers of children with additional handicapping conditions. The total instances of each category of special need are also shown.

Where there was a second category of special need, this was most often a behaviour problem. Closer examination of the data reveals that most children were withdrawn and under-reactive rather than aggressive and over-reactive. Some children were described as totally silent and isolated, neither integrating with peers nor relating to adults. Others were observed by staff to play occasionally with other children and to speak in their mother tongue but to avoid all adult contact. Staff commented that it was difficult to ascertain the extent of such children's comprehension and ability to use English and that they tended to assume limited functioning, perhaps underestimating such children.

All 17 children identified with additional speech problems had speech defects. In some cases, these were hare lips and cleft palates. Staff reported speech defects in other Asian children where parents or Asian teachers had indicated poor articulation in the child's mother tongue.

As with perceived physical handicaps discussed earlier, children with second language problems and additional physical handicap were mildly debilitated rather than suffering from severe physical handicap. They suffered from such conditions as controlled epilepsy, rickets, minor heart defects and asthma. Similarly, there were no instances of severe mental handicap reported.

Four children with second language difficulties were also perceived to be gifted. Three of these children attended the same pre-school unit where one member of staff was Asian and spoke three Asian languages fluently. She could confirm that these children were advanced in the use of their mother tongue as well as in cognitive skills and general intellectual development. It was not envisaged that they would have any difficulty acquiring English before going to school. The fourth child was described as enthusiastic with good memory, long concentration span and advanced skills.

DISTRIBUTION OF CHILDREN WITH SECOND LANGUAGE PROBLEMS

Table 10 shows that children with second language problems were found predominantly within educational pre-school facilities. Of the 1,260 children in the total sample attending day nurseries, only 18 came into this category. This was due to the fact that very few Asian children attend day nurseries. The Asian community is very supportive and will assist families when necessary. The extended family also remains strong. Asian mothers of pre-school children rarely work and if they do, aunts and grandmothers can care for the family. Day nursery places may not, therefore, be sought.

Even within the educational facilities, children with second language problems were not evenly distributed. In the Birmingham research area the Asian community was found in and around Handsworth. In Coventry the Asian population was also concentrated, within neighbourhoods north and east of the city centre. It follows that children with second language problems will be over-represented in some units and not found at all in others. For example, 17 nursery classes reported no children with second language difficulties, 17 perceived up to one third of their children as having second language difficulties and for 6 classes this figure was over 70 per cent. It is important not to assume that all educational units had more children with second language problems than all playgroups and day nurseries. Although 27 playgroup leaders reported very few such children, 5 placed more than one third of their children in this category.

DISCUSSION

Second language difficulties clearly present a major problem to many pre-school units within the research areas. Large numbers of Asian children were perceived by staff to have poor comprehension and expressive use of English. It must be borne in mind that, in addition to those Asian children referred, many more not identified will have subtle language difficulties perhaps disguised by a more confident and out-going personality. For example, one nursery class teacher referred 50 per cent of her children as having very limited ability to communicate in English but added that a further 30 per cent, while able to communicate, had specific difficulties especially in expressive language.

During interviews with members of staff it became apparent that many of them felt swamped by the magnitude of the difficulties which they faced in trying to assess and educate large numbers of non-English speaking children. They were especially concerned that they might under-estimate a child's ability. As we have seen, many Asian children were perceived to be withdrawn and under-reactive. They did not relate well to their peers and avoided adult contact. It would appear to staff that they could not communicate but it may be more accurate in some cases to say that they would not communicate. Some teachers were surprised to learn that a silent child in the nursery was often a talkative child in the home, in his mother tongue and sometimes in English. It was interesting to note that three Asian children perceived to be intellectually superior were assessed by an Asian teacher. To a casual observer these children would appear to be having great difficulty communicating in English and may even appear to be developmentally delayed but the Asian observer was aware of their superior skills in their mother tongue and hence their potential for future achievement.

While staff were concerned that they may under-estimate the abilities of some Asian children, they were also aware of the difficulties in detecting handicapping conditions amongst non-English speaking children. Some may have speech defects or language problems in their mother tongue. Others may be seriously delayed in language acquisition because of a hearing defect or mental handicap. Such conditions are difficult to assess and diagnose in any pre-school child but especially difficult amongst children with additional second language problems.

Staff were most confident in units which had the services of an Asian teacher or nursery nurse, either from a centrally-organised support team or as a full-time member of staff. As well as advising and educating staff, an Asian colleague could contribute a great deal to the well-being of the children. This person was the link between the languages and cultures of the children and the staff - the link between home and pre-school. One headteacher commented that her Punjabi-speaking nursery nurse was an asset in moments of crisis - when some children were distressed or upset they seemed to abandon any English they had acquired and an adult speaking their mother tongue was most effective in settling them down again.

Any pre-school unit with a group of non-English speaking Asian children should have their major languages represented amongst the adults present. One 80 place nursery class visited had 63 Asian children in attendance. The teacher had recently been appointed from a school with few Asian children and none of her staff spoke an Asian language. In an emergency a Punjabi or Urdu speaking teacher could be summoned from the infant/junior school to deal with children or parents. In this nursery class 58 children were perceived as having second language problems.

Asian parents are only just beginning to recognise that they may be able to play an active and important role in the pre-school education of their children. First of all they had to be convinced that pre-school attendance could provide valuable experience for their children and many teachers commented that this acceptance was slow to develop. Asian parents tend to have a rigid view of education in which schools should be formal, inflexible and strict in their discipline and the relaxed, free-play regime of the British pre-school did not fit into this conception of the learning situation.

Once the children were attending, the next stage was to persuade the parents to take an interest in the nursery activities. This was more difficult to do. Parents were often very shy and embarrassed with members of staff, pushing their children in through the nursery door and leaving quickly. One of the researchers observed an Asian boy being left in this way on his very first day in the nursery. The large number of strange children milling around together with adults he could not understand or talk to caused him a great deal of distress for the remainder of the morning. With parents, as well as children, language was a problem and so some units set up English-language classes for mothers as well as activity groups to teach such things as needlework and cookery. Often a mother would volunteer to run such classes.

Some pre-school units now report that Asian mothers are frequent visitors. One woman enjoys weekly baking activities with groups of children. Another organises art work and dancing groups. Many Asian mothers bring items to the unit to help set up beautiful displays illustrating important themes from their own culture. The staff hope that by showing the parents what goes on in the nursery and by encouraging the use of English, there will be carry over into the homes. It must be remembered that many of these pre-school children are

'second generation immigrants' yet they still come to nursery and school speaking little or no English, mainly because the mother tongue is spoken at home. By teaching the parents, the children will undoubtedly benefit.

Finally, a comment must be made about the minority groups in some of these units, namely children from white English families. For example, an 88 place nursery class in Birmingham had 6 white children in attendance and such proportions were found in several units. These children are likely to have special needs themselves related to language development. Good language models are not available to them but staff are likely to see language development as first priority for Asian children whose problems will take up a great deal of their time. Compared with some of the Asian children, the indigenous white children may appear to have good command of English but staff expectations and standards are likely to have fallen because of the population with which they work.

Second language problems were not considered within the remit of the Warnock Committee but they clearly present great difficulties for many of the pre-schools and so are an important consideration when discussing the integration of children with special needs into ordinary units. When over half of the children attending a nursery unit have problems communicating in English, then that unit ceases to be an ordinary unit. It requires additional staff to enable small group work to be carried out, particularly staff fluent in Asian languages who are also available to help parents. Without such support, the attempted integration of children with other handicapping conditions would impose an intolerable burden on existing staff, to the detriment of all the children attending.

CHAPTER 6.

Interviews with Staff in Ordinary Pre-School Units

INTRODUCTION

A structured interview was conducted with the person in charge of all 104 pre-school units previously discussed in the Birmingham and Coventry samples. The interview concerned those aspects of pre-school provision which are relevant to the integration of children with special needs and included :

1. Staffing
2. Parent involvement
3. Accommodation
4. Staff training and experience
5. Involvement of outside profesaionals
6. Record keeping
7. Nursery policy regarding admissions, catchment area and waiting lists

The full interview schedule is in the appendix. Comparisons were made between nursery schools and classes, day nurseries and playgroups in relation to these factors. The findings from Birmingham and Coventry were very similar and so will be discussed together. Any significant differences between the two areas in responses to specific questions will be noted.

STAFFING

The nursery schools were in the charge of a headteacher supported by additional teachers and nursery nurses. Responsibility for the nursery classes lay with the headteacher of the infant or primary school to which the class was attached. While nursery policy was generally decided by the headteacher, the teacher in charge of the class often had control over the day to day running of the unit. Depending on the size of the class, she may have the assistance of a second teacher as well as nursery nurses.

Day nurseries, supervised by an officer-in-charge (Birmingham) or a matron (Coventry) were staffed by nursery nurses and sometimes supported by unqualified child assistants. Four of the day nurseries had a full-time teacher and two had the services of a teacher on a part-time basis.

Playgroup supervisors had usually completed courses organised by the Pre-School Playgroup Association. In addition, five playgroup workers had had teacher training and eight were qualified nursery nurses.

Nursery schools and classes had the extra assistance of student nursery nurses at regular intervals during the year. This additional help is now, however, very much reduced. Many staff interviewed said that fewer students were being sent to their units (one nursery school had 6 students last year and only 2 this year) and that students now only spent 3 or 4 days each fortnight in the unit, their courses being much more college-based. Six of the playgroups had student help during term time but the remaining 26 had no such intermittent assistance. Many units had occasional help from secondary school pupils, job experience and community enterprise teenagers and students from college courses such as home nursing and child care. Staff reported a wide range of ability in these young people, some being very capable and willing and others being more of a hindrance than a help.

When asked what additional staff would be beneficial to help cope with children with special needs, approximately half suggested teaching staff and half suggested nursery nurses (some requesting both categories). This is consistent with the finding in the Scottish survey where more of the same kind of staff was requested; many of the staff in the present study, however, went on to suggest, in addition, the need for a new category of staff. In most cases this referred to teachers or nursery nurses who had had training and experience with young children with special needs. It was envisaged that this person would work with handicapped children in the nursery and by demonstration, would teach staff new skills in the handling of such children.

PARENT INVOLVEMENT

As expected, parents were very much involved in the playgroups. They were generally available to work with the children, to prepare materials and to help tidy up as well as to carry out specific tasks with the children. There was also evidence of some parental involvement in the other units. 70 per cent of the nursery schools, 62 per cent of the day nurseries and 54 per cent of the nursery classes used parents at some time for general assistance and tidying up but not for specific tasks with the children. Very few units, however, had more than one

parent present on any day and in most units parent involvement was irregular and spasmodic.

Two of the three nursery schools with no parental involvement would like to encourage more. This was also true of 12 of the 19 nursery classes with no parents and 7 of the 8 day nurseries. Some staff explained that many of their mothers were Asian and had poor understanding of English. They were shy in approaching staff and needed a great deal of encouragement to stay in the nursery, some even being reluctant to do so on their child's first days of attendance. Other mothers were working or were 'just not interested.'

Nine units, mainly nursery classes, did not want to make use of parent help. The staff concerned said that parents required too much staff time in organising them and telling them what to do and, moreover, they tended to be a disruptive influence of their own children.

It would, therefore, appear that where parents are able and willing, they can make a valuable contribution to the nursery. Most units were flexible in that they could accommodate eager parents and find a role for them. Such flexibility would be essential for the admission of certain children with special needs who might require their mother's presence for a longer time than usual in settling down. The mother can advise staff in the handling of her child, the staff are able to observe mother and child interacting and the mother, in turn, is able to observe her child interacting with others.

ACCOMMODATION

All day nurseries had two or more separate rooms. The nursery schools were also found to be quite spacious but the greatest variation in the nature of the accommodation was reported in the nursery classes. Only 12 of the 41 classes had two or more separate rooms, the remaining classes having a single room or open area. More than half of the playgroups were housed in a single room which was often a large hall in a church or community centre and most of these had no quiet area available, neither a separate room nor a section within the main room. The majority of the nursery schools and day nurseries had rooms set aside for quiet activities but again the nursery classes were not so well-equipped. Seven of the 41 classes had a quiet area within the main nursery and 11 had no quiet area at all.

Day nursery matrons and officers-in-charge were the least satisfied with their accommodation, 20 out of the 21 units suggesting necessary alterations for the children attending, in addition to changes which would require to be made for handicapped children. Lack of space was the main problem, many matrons expressing the need for a parents's room since parent counselling was now an important function of the day nursery. Outside play areas were also considered inadequate by many day nurseries. Some nursery schools and classes also reported lack of space and, in the latter, the teachers felt this could be remedied by the provision of a quiet room. Many units would require specific alterations to cope with handicapped children - those interviewed frequently mentioned stairs, inadequate toilet and laundry facilities, narrow or heavy doors and jutting out fixtures such as fireplaces. Two nursery class teachers felt that extensive carpeting would be required to deaden noise for partially hearing children and to cushion the fall of unstable physically handicapped children.

Since playgroups usually shared their premises with many other groups and clubs, they would be unable to make permanent structural changes to cater for pre-school children or for children with special needs.

The Scottish survey revealed a lack of sensitivity to noise level in the pre-school units - none of the 98 interviewees in that study felt that noise level would affect their ability to deal with children with special needs, even in units where the research worker judged the noise level to be high enough to adversely affect distractable, timid c. withdrawn children. The present study found more awareness of the effects of noise. Most of those interviewed regarded the level of noise as average for a pre-school unit. Approximately half of those interviewed in nursery schools and classes and playgroups did regard noise level as possibly detrimental to certain children with special needs, as did one third of the day nursery matrons. Many more of the day nursery matrons who said that noise level would not hinder work with children with special needs, qualified this by saying that they had quiet rooms for withdrawal when necessary.

TRAINING

Of the 10 nursery school headteachers interviewed, 4 had undergone teacher training with a pre-school component, 4 had received infant/junior teacher training with no pre-school component and 2 had both nursery nursing and teaching qualifications. It is interesting to note that the 4 headteachers with pre-school training felt that their training had been adequate preparation for the post they now held; on the other hand, the 4 headteachers with infant/junior training stated that they were not adequately prepared for the post of head of a nursery school.

The training of teachers in charge of nursery classes showed a similar pattern. Approximately 37 per cent had pre-school training, 49 per cent had only infant/junior training and 15 per cent had nursery nursing and teaching certificates. Half of the teachers expressed dissatisfaction with their training as preparation for the post of teacher in charge of a nursery class but this figure is likely to be an underestimate. For example, one teacher had worked only in secondary schools before being appointed to the nursery class, having had no specific pre-school training. When asked if she felt adequately prepared for this post she said, hesitantly, that she was, then qualified this with a comment indicating that she thought that was the expected response! The teachers most frequently mentioned that they would have appreciated more training in the administration of a nursery class, in the handling of staff and in planning the curriculum.

Day nursery matrons and officers-in-charge held Nursery Nursing Examination Board certificates or equivalent qualifications. An overwhelming 81 per cent stated that their training had been inadequate preparation for their present responsibilities and many added that it was inadequate even for the post of nursery nurse. The reason given for this feeling was that the function of the day nursery and hence the role of matron had changed dramatically during the past decade. Previously, day nurseries had catered for families where both parents were in full-time employment. Today, many of the children come from one-parent families or are 'at risk' in the home and almost all the children are priority admissions because they suffer some degree of social/emotional deprivation. As well as dealing daily with more severely disturbed children, matrons are becoming more and more involved in parent counselling, often coping with psychiatric illnesses of which they have little experience. Most of the matrons agreed that

training for nursery nurses is gradually becoming more relevant to the present day situation but there is still an apparent need to provide in-service courses for older established staff in order to impart 'social work' skills to them.

A wide range of training was found amongst the playgroup supervisors. 19 of the 32 interviewed had completed Pre-School Playgroup Association courses, many having taken several in addition to the Foundation Course. Of the remainder, 5 had teacher training, 5 had been nursery nurses and only 3 had no relevant training but were themselves mothers of young children.

The majority of those interviewed had no training or experience related to children with special needs. Where staff did report some previous experience of handicap, it tended to be of a very limited nature. There was also very little specialist knowledge amongst the ordinary staff in the units. It is not, therefore, surprising that most of those interviewed felt that their training had not prepared them for dealing with handicapped children in their units. Most said they had never been to a nursery for children with special needs. For those who did report contact with handicapped children, either in training or since, it tended to be in the form of a one-off visit to observe. The staff felt that such visits were valuable and should be arranged on a regular basis.

INVOLVEMENT OF OUTSIDE PROFESSIONALS

Staff were asked about the various professional agencies which had referred children to their unit as priority admissions during the previous three years. They were also asked to comment on the support received from these agencies in terms of the frequency and regularity of visits made to the nursery. Professional groups concerned included health visitors, social workers, clinical medical officers, general practitioners, educational psychologists and speech therapists.

Referral of Children with Special Needs to Pre-School Units

Variation was found amongst the different types of unit regarding referral of children with special needs. All 10 nursery schools had received requests from health visitors and most had received requests from clinical medical officers, general practitioners and social workers.

Health visitors and social workers were also the main referral agencies to nursery classes. Nursery classes, however, received fewer

requests from clinical medical officers, general practitioners and psychologists than did the schools.

As expected, all day nurseries had referrals from social workers who were involved at some stage in every admission. Health visitors were also involved in many of these admissions and so too were doctors and psychologists.

Playgroups differed from all other types of pre-school unit since they received relatively few requests from professional agencies to accept children with special needs. Of the 72 nursery schools and classes and day nurseries visited, only one unit had received no requests for priority admissions during the previous three years, while almost half of the playgroups reported having received no such requests. Health visitors and social workers occasionally approached a playgroup for priority admission of a child but general practitioners, educational psychologists and clinical medical officers rarely did so.

Parents themselves approached units to accept their children as priority admissions. All day nurseries had experience of such referrals and many nursery schools and classes had accepted children who were felt to be genuine priority cases, at the request of parents.

Many units in Coventry, particularly nursery classes, had received children from the Child Development Unit at Gulson Road Hospital. Children who were felt to have special needs attended the Child Development Unit on a daily basis for a period of medical and educational assessment. A place would then be sought for each child in the pre-school unit considered most able to meet his special needs. Several hospitals in Birmingham were involved in the assessment and placement of young children with special needs, in particular the Children's Hospital.

Professional Visits to Pre-School Units

Health visitors paid the most frequent and regular visits to all types of pre-school unit. They would always come to the nursery to see a specific child at the request of the staff but many also called in regularly to advise staff, talk to parents and check on the general health of the children. Such visits were appreciated by the nursery staff but their frequency seemed to depend on the interests of the individual health visitors. Some nursery class teachers commented that, while they had rarely seen their previous health visitor, a newly appointed health visitor adopted a different policy and preferred

to call fortnightly. Other teachers who had been accustomed to health visitors coming in regularly said they missed this contact when a new health visitor made less frequent calls.

Social workers were most actively involved in day nurseries although they occasionally visited schools, classes and playgroups if a family on their caseload included a pre-school child.

Educational psychologists only visited pre-school units if the staff were concerned about a particular child and requested assistance. All of the nursery schools had had at least one such case during the previous three years and approximately half of the classes and day nurseries had been visited by a psychologist in that period. Psychologists rarely visited playgroups. Most playgroup leaders felt that they rarely required the services of a psychologist since they had few children with severe problems.

Speech therapists occasionally visited nursery schools and classes and day nurseries to assess individual children with speech and language problems. If children required regular speech therapy sessions they generally attended the local speech therapy clinic with their parents for 30 minutes or one hour each week. Very little information was passed back to the nursery staff regarding a child's problems and progress and so staff were unable to reinforce speech therapy sessions in daily nursery activities.

To summarise, very few pre-school units were visited regularly by outside professionals. Most units have access to social workers, psychologists, speech therapists and clinical medical officers who will assess individual children if requested. Pressure of work often led to delays between referral and action, sometimes of six months or more. Staff frequently commented that they would appreciate advice of a more general nature rather than only relating to specific children. For example, they were often uncertain as to whether some children had speech and language problems or were just developing slowly and needed no immediate therapy. They would have liked guidelines from speech therapists to help them decide when intervention was necessary. Liaison between speech therapy and the nursery unit concerning individual children in therapy was also considered important, to enable nursery staff to reinforce the work of the speech therapist. Few units received feedback of this kind. One teacher interviewed had made several

unsuccessful attempts during one term to obtain information about speech therapy being received by one of her children who had severe language problems. She received no information and was frustrated in her attempts to communicate with this child as a result.

It appears that there is a need for pre-school units to receive more information from all professional agencies dealing with a child, especially if that child has special needs of which the staff should be aware. A severely handicapped child in one of the units visited, entered unaccompanied by any records and six weeks passed before any information was received. Staff were obviously very concerned and uncertain in their handling of this child and may have been discouraged from accepting handicapped children in future.

RECORD KEEPING

The Scottish study found little evidence of record keeping - none of the playgroup supervisors kept written records and only half of the nursery schools and classes. The present study found considerably more written records being kept. Some form of written record was kept in all nursery schools and classes and day nurseries on all children. In addition, 7 playgroup supervisors kept written records.

Nursery schools were more likely than nursery classes to keep daily diaries of notable incidents involving particular children. All schools and classes kept developmental records on all children. The method of recording varied from unit to unit since teachers tended to devise their own schemes by borrowing sections from various standard developmental profiles and progress charts. But the information was summarised and passed on to reception classes on standard forms issued by the local education authorities. Many teachers in Birmingham expressed dissatisfaction with the recently developed standard record form. Very little space is provided in any of the sections which cover various aspects of development and they were particularly worried about summing up a child's emotional/social development in only a few words. Consequently, many teachers chose not to complete this section. The record form used in Coventry is much longer and, although it takes some time to complete, teachers are given more scope to comment fully on a child's progress and developmental level. A few nursery schools and classes have additional individual programmes for some children but these are generally not passed on to the receiving school.

NURSERY POLICY

Nurser schools, day nurseries and playgroups tended to have no catchment area; geographic area did not, therefore, determine admission. Almost half of the nursery classes had clearly defined catchment areas, these being determined by the infant or primary school to which they were attached. Although all of these nursery classes gave preference to children who would progress to the reception class of the school, half of them said they would accept children from outside the catchment area to fill vacancies.

While the day nurseries accepted children regardless of age, most nursery schools and classes offered places to children over three years of age. Several nursery schools with vacant places would, in fact, accept a child two or three months before his third birthday. Exceptions were also reported by some nursery schools who would admit younger children of one parent families or with a handicapping condition. Where exceptions were made by nursery class teachers, these had been most often the admission of teachers' children. Playgroups generally accepted children from the age of $2\frac{1}{2}$ years.

Considerable variation and even confusion was found regarding waiting lists. If day nurseries and playgroups had waiting lists of children for admission, these were usually short. Some nursery schools and classes also had very short waiting lists comprising children who were too young to attend but who would be offered places during the next year. These units were mainly in the inner districts of Birmingham where population was falling. The longest waiting lists were found in the outer ring districts of Birmingham and in areas of Coventry where there is more competition for pre-school places. Headteachers select the children admitted and so the way in which waiting lists are administered varies considerably. Some parents place their children on waiting lists at birth where schools operate a first come, first served procedure. Other schools and classes only take names for admission after a child's second birthday. Complications arise when there are more 3 and 4 year olds on the waiting list than there are vacant places. Teachers try to ensure that every child had some nursery experience before going to school but they also wish to maintain an equal balance of boys and girls as well as a balanced age range. Some units were increasing the numbers of children attending by making full-time places into part-time places.

It would, therefore, appear that where a handicapped child lives will not greatly influence his admission to an ordinary pre-school unit but his age might be a more limiting factor. Units varied considerably in their flexibility regarding age at admission and even where there was some flexibility, this would not always favour a child with special needs.

CHAPTER 7.

Special Pre-School Units

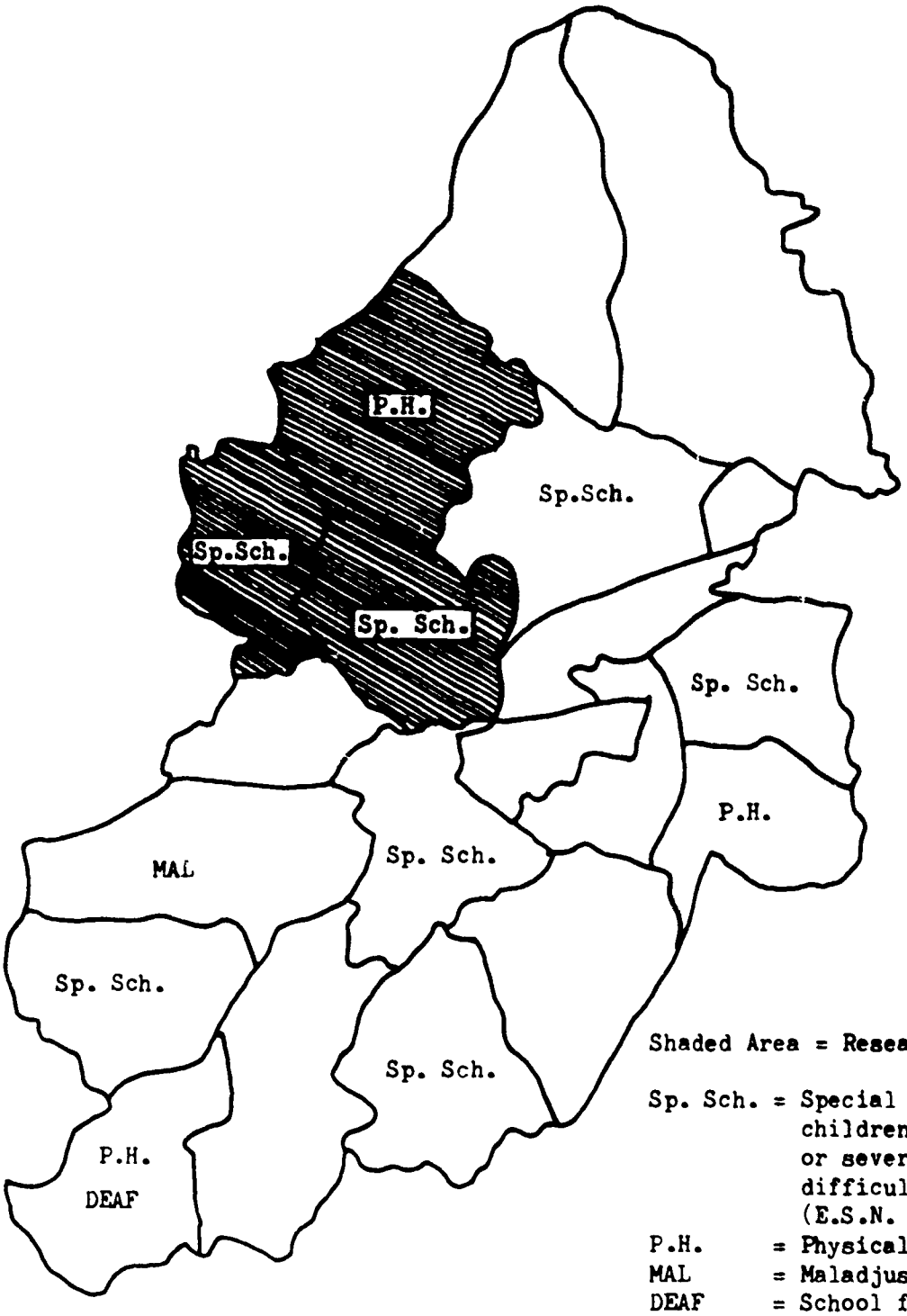
INTRODUCTION

As was shown in chapters three and four, the survey carried out in ordinary pre-school units in the Birmingham and Coventry research areas revealed very few severely handicapped children in attendance. Children perceived by staff as having special needs fell mainly into the categories of speech and language problems and behaviour problems. If children with mental, physical and sensory handicaps were receiving pre-school education, the majority must have been attending special nursery units. A survey was, therefore, carried out in nursery classes attached to special schools in Birmingham and Coventry to ascertain the proportions of pre-school children in attendance at such units. As in the survey of ordinary units, staff in charge were interviewed and asked to provide information about the children attending.

NURSERY CLASSES ATTACHED TO SPECIAL SCHOOLS

All 12 nursery classes attached to special schools in Birmingham were visited. As can be seen from figure 2 , these schools were scattered throughout the city. Six nursery classes were attached to special schools for the educationally subnormal and three to schools for the physically handicapped. It should be noted, however, that this distinction was not so clearly made in the nursery units of these schools. Most of the physically handicapped schools contained mentally handicapped pre-school children and vice versa. It was often difficult to determine a child's major handicapping condition and to assess the severity of his handicap at the age of two years. Assessment and diagnosis would, therefore, be carried out in a special nursery class and, if necessary, a child would be transferred to a more suitable school at the age of five or six years.

Of the remaining three nursery units, one was attached to a school for the deaf. All of the children in this nursery had hearing problems and some had additional handicapping conditions. The second nursery class was within a school for maladjusted children and was attended by pre-school children with various handicapping conditions, many due to social deprivation and poor home circumstances. All of



Shaded Area = Research Area

Sp. Sch. = Special School for children with mild or severe learning difficulties (E.S.N. (M) or (S))
P.H. = Physical Handicap
MAL = Maladjusted
DEAF = School for the Deaf

Note : Special Schools are shown within consortia but not in exact location.

FIGURE 2

SPECIAL SCHOOLS WITH NURSERY UNITS IN BIRMINGHAM

these children transferred to other schools at the age of five years since they were not assessed as 'maladjusted.' Furthermore, maladjusted children were not admitted to the school until the age of 8 years and so there was no infant department. The final nursery unit visited was part of an E.S.N. (S) school and catered for children with multiple handicaps.

There were six nursery classes attached to special schools in Coventry. Three of these were in schools for children with severe learning difficulties (equivalent to E.S.N.(S)), one in a school for moderate learning difficulties (E.S.N.(M)) and two in schools for the physically handicapped. The visits to the Coventry special schools were planned for the closing months of the research, during which there was unfortunately a strike which resulted in extended closure of schools in Coventry. In spite of this, it was possible to interview those in charge of five of the six classes; that omitted was one nursery class, in a school for the physically handicapped.

VISITS TO SPECIAL NURSERY CLASSES

Visits to special nursery classes in Birmingham took place in May and June 1981 and Coventry's special nursery classes were visited in November 1981. The teacher in charge of the nursery class was interviewed and additional information was supplied by the headteacher when necessary. The same structured interview was used as in the ordinary pre-school units with several minor alterations where appropriate, to suit the special school situation. For example, the questions relating to accommodation, staff training and priority admission of children were modified and additional information about the future placement of children was sought. The staff were also asked to list the children attending their unit along with their dates of birth and descriptions of their handicapping conditions. The categories of special need used in the ordinary units were given to them as guidelines but it was often more appropriate for them to name the syndrome or disorder from which a child suffered than to list the various categories which were involved.

The range of children attending special nursery classes will be discussed first. This will be followed by consideration of the information obtained in the structured interview with staff.

CHILDREN ATTENDING SPECIAL NURSERY CLASSES

Numbers of Children and Age Range

The number of children on the registers of the special nursery classes visited in Birmingham and Coventry are shown in Table 11. 93 of the 138 children in the Birmingham units were aged four years and under at the time of the survey and the remaining 45 children were five years old and over. Eight to ten year old 'nursery' children were found in one school where handicapping conditions were so severe that the children were functioning at pre-school level and so a nursery place was felt to be most appropriate. In other schools such children were placed in special care units, separate from the under-fives. Similarly, in the units in Coventry approximately half of the children were of pre-school age, the remainder being five and six years old with only two children over six years of age.

TABLE 11

NUMBERS OF CHILDREN ATTENDING SPECIAL NURSERY CLASSES IN BIRMINGHAM AND COVENTRY ACCORDING TO AGE

	BIRMINGHAM	COVENTRY	TOTAL
4 years old and under	93	30	123
5 years old and over	45	27	72
Total number of children	138	57	195
Total number of units	12	5	17

The handicapping conditions of the under-fives will be considered in detail in the next section. Only a brief comment will then be made concerning the older children in the nursery since they are beyond the remit of the present study. Their presence does pose additional problems for the nursery staff and may also influence the younger children in many ways.

Many children had complex handicapping conditions involving several categories of special need. They will be considered within the broad areas of physical and mental handicap. It must be borne in mind, however, that physical handicap is often associated with some degree of mental retardation and many mentally handicapped children also suffered some physical disability.

Physical Handicap

Thirteen children were reported to suffer from spina bifida. Severity ranged from a child who was immobile and doubly incontinent to those who walked and were mildly incontinent. A large number of children suffered from cerebral palsy. Again, the severity of the handicap varied considerably. One child with cerebral palsy also suffered from spina bifida while two others were reported to be mentally retarded. Nine of the 25 children with cerebral palsy were Asian and had to cope with additional second language difficulties.

Three children with brittle bones attended nursery classes for the physically handicapped in Birmingham. They had no perceived handicaps in addition to this condition.

A three year old Asian child attended a nursery class for the hearing impaired. No English was spoken in his home but it is interesting to note that nursery staff perceived him to have superior intellectual ability. He was extremely alert, acquired new skills quickly and concentrated for long periods. There were two other pre-school children in this unit, both totally deaf and, again, both Asians, one having two deaf siblings.

A three year old child had severe congenital heart disease which rendered him immobile. Several other relatively rare syndromes affecting the neurological system and body metabolism were found in special nursery units. For example, one child was believed to suffer from a rare degenerative illness which progressively affects motor co-ordination, sight and mental ability. A child with suspected visual and hearing problems suffered serious fits associated with a build-up of calcium in the brain. Another rare syndrome which affects the body's metabolism resulted in compulsive self-mutilation in one young child. Because of this, arm splints were worn and teeth had been removed but there was no evidence of mental handicap.

Mental Handicap

Pre-school children in special nursery classes for the mentally handicapped fall into two main groups - those with a known physical or genetic abnormality such as Down's Syndrome and those where the causes are less apparent - there may be some diffuse brain damage and/or social and emotional deprivation, resulting in severely delayed development.

Twenty children were referred as having Down's Syndrome or mongolism. Approximately half of these children had the classical physical features associated with Down's Syndrome - flat face, narrow eyes

and stubby fingers - and suffered mild to severe mental retardation. They were, however, mobile and able to engage in a wide range of nursery activities. The other half were more severely debilitated. For example, a four year old boy with visual handicap and a club foot had a serious heart defect (often associated with Down's Syndrome) which rendered him immobile on a cushion on the floor of the nursery. Four other mongol children respectively suffered convulsions causing brain damage, arrested hydrocephalus, microcephalus/tetraplegia and brain damage resulting in very little speech. Finally, a three year old boy with Down's Syndrome was multiply handicapped since he suffered five epileptic fits daily resulting in brain damage and had a congenital abnormality of the hip joints. Down's Syndrome is not, therefore, a suitable term to describe such children. They all manifest the chromosomal abnormality which signifies mongolism but there is considerable variation in their ability to function and to acquire new skills. Some are mildly mentally retarded and very active while others, as we have seen, are severely handicapped, both mentally and physically.

Several children were mildly or severely mentally handicapped for no apparent reason. Some may have suffered non-specific brain damage resulting from epilepsy, meningitis or other trauma. Others were felt to be retarded because of lack of stimulation in the home, perhaps where parents had attended special schools themselves. Social factors seemed to be the main cause of retardation amongst many children in the unit attached to the school for maladjusted children in Birmingham. Marital problems, psychiatric illness and poor general care in the home led to emotional instability and developmental delay in young children.

Nursery Children over 5 years of age

Seventy-two of the 195 children in special nursery classes were aged five years and over. As discussed previously, their attendance is due to the fact that these children were still functioning at pre-school level. Large schools may have a special care unit for such children but in some schools it is policy to integrate them with the under-fives.

By definition, these children are severely handicapped. For example, a seven year old child was a Rubella baby. In addition to the hearing loss typical of Rubella children, this child was also microcephalic and brain damage caused by grand mal epilepsy resulted in

severe mental handicap. Another epileptic eight year old in the same nursery unit had a grossly abnormal E.E.G. and virtually no motor ability. The oldest child in a nursery unit was a ten year old boy with athetoid cerebral palsy, microcephaly, epilepsy and a visual defect.

Ten of the children aged five years and over had Down's Syndrome and most of them were about five or six years of age and soon to move on to another class.

Mildly Handicapped Children in Special Units

Many severely handicapped children have been discussed who formed the majority of those in nursery units attached to special schools. Other children were found in special nursery classes who were less severely handicapped and for whom attendance at ordinary school might be possible. In some instances transfer was being considered. Four children in a nursery class for the physically handicapped suffered from Perthes Disease. They were around four years of age, making marked improvement and were expected to move to ordinary schools in the near future. Several children already discussed were retarded because of poor home circumstances. Staff hope that they will progress rapidly in the stimulating environment of the nursery class and be able to attend normal infant classes.

Some five and six year olds in a nursery class for mildly mentally handicapped children were labelled 'slow learners'. Their teacher felt that they should soon be returned to ordinary schools since, with some support, they should be able to maintain progress. In the same unit was a five year old boy who had been removed from ordinary school because of behaviour problems. He was not mentally retarded and his behaviour was felt to be much improved therefore his immediate return to ordinary school would seem imperative. A four year old girl had been placed in a nursery class for the physically handicapped when she too was labelled 'hyperactive'. The class catered for severely handicapped children with brain damage, spina bifida, epilepsy and paralysis. Since she had no physical handicap, the class teacher strongly felt that she should be transferred to a day nursery. Her speech and language were immature and no progress was being made in the special nursery where there was little stimulation from peers.

Finally, two children with no special needs were found in special nursery classes. Both had been placed there at the request of parents who wanted them to accompany handicapped siblings. One girl of three

years of age attended a special nursery class with her severely handicapped four year old brother who had no speech. The other children in the unit were emotionally disturbed and/or mentally retarded. The second child was placed in a class for multiply handicapped children with a physically handicapped sibling. The long term effects of such a placement on the development of a normal child must be seriously considered. Staff commented that they stimulated the handicapped children to higher levels of functioning. The normal child also requires peer stimulation which is likely to be lacking in the special nursery and it must be questioned whether the additional staff attention potentially available as a result of the more favourable staff/child ratio will compensate for this.

It is clear from the above descriptions that some of the children of pre-school age attending special nursery units were severely and multiply handicapped and might well require to continue in special units when of school age. Some of the less severely handicapped children had been admitted to such units for a specific time or a specific purpose such as preparing them for entry to or return to ordinary school. The staff ratio and more ready access to a variety of professionals might well facilitate the hoped for developments. It is also clear, however, that in attendance at some of these units were children, including some of school age, who were so severely and multiply handicapped that they would require much care and attention, including nursing from the staff. Likewise, few would provide a language model and stimulus or be active playmates for their pre-school companions. Since interactions between the pre-school child and companions of the same age is one aspect, and a not insignificant aspect of pre-school education, the possible lack of such in certain special nursery units is an important feature to be considered when deciding in a particular instance.

INTERVIEWS WITH STAFF IN SPECIAL NURSERY CLASSES

As mentioned previously, the structured interview carried out with the staff in charge of special nursery classes was very similar to that used in ordinary pre-school units. Several questions, such as those related to accommodation and training of staff, were modified in order to be more appropriate to the special school situation. An additional section concerned the future placement of children on leaving the nursery unit. The teacher in charge of the nursery class was interviewed and, where necessary, additional details were supplied by the headteacher.

STAFFING

The special nursery classes were ultimately the responsibility of the headteachers of the schools to which they were attached. In most schools, however, the teacher in charge of the class had considerable autonomy in day to day management and curriculum. In larger classes there was a second teacher to assist and most classes had a nursery nurse. All units also had the services of one or two special schools assistants.

The staff/child ratio was considerably better than that in most ordinary nursery units. Most special nursery classes had one member of staff for every three children although there were some exceptions to this, especially where units were not filled to recommended capacity. For example, one 12 place nursery class in a school for the mentally handicapped had three full-time members of staff - a teacher, a nursery nurse and a special schools assistant. At the time of the survey, only five children were attending although it was envisaged that three more would begin attendance within a fortnight. The poorest staff/child ratio was found in a 10 place nursery unit, also in a school for the mentally handicapped, which was staffed by a teacher and a special schools assistant.

PARENT INVOLVEMENT

As in ordinary pre-school units, considerable variation was found in staff attitudes to parent involvement in the nursery. Only in three units did staff say that they did not and would not encourage parents to come into the nursery. They all stated that parents were a disruptive influence and one added that many parents suffered from psychiatric illnesses and so it was beneficial for the children to be away from them during the day.

Four nursery units welcomed parents into the class at any time but experienced difficulty in establishing this practice. In one school for the mentally handicapped, a previous headteacher had discouraged active parental involvement and now a recently appointed headteacher was trying to reverse this policy but progress would obviously be slow. A teacher in a school for physically handicapped children found that parents were often unable to accept their pre-school child's handicap and so were reluctant to come into the nursery class where there might be children more severely handicapped and deformed than their own child.

The remaining units all used parental help for supervision of activities such as swimming, lunch times and school trips. Some parents, while not actually working with children in the class, carried out home programmes under the direction of the class teacher. Other units organised informal discussion groups and coffee afternoons where parents could help each other with management problems and generally provide mutual support. Only in one nursery class for multiply handicapped children was there evidence of regular visits by parents to work with the children. An Asian mother whose handicapped child had moved on to the junior school came into the nursery class every day to assist. Since many of the families coming to this nursery were Asian, she was an invaluable help to the staff.

Many parents were said to be prohibited from visiting their child's nursery class because of travel costs. Children are transported to and from school by taxi and coach, sometimes from a wide catchment area and so parents cannot just pop into the nursery when they wish. They may be further restricted by having to look after other non-handicapped children in local nurseries and schools.

Staff frequently stressed the need for greater parental involvement in the activities of the nursery class, some even suggesting that funds should be available to subsidise the travel of parents living several miles away. Teachers were especially concerned that parents were unable to continue a programme of work with their child during school holidays. The skills and general development of many children were found to regress especially after long summer holidays. Several months' work would have to be repeated in order to help the child return to the stage which had been reached before the vacation. Where

closure in Coventry for most of the autumn term, because of industrial action by the National Union of Public Employees, had followed soon after the summer holidays, nursery staff were working in the homes with parents and children, setting up programmes of work to try and offset the detrimental effects of many weeks absence from school.

OTHER VOLUNTARY ASSISTANCE

As in ordinary pre-school units, most special nursery classes had the assistance of various unpaid volunteers at certain times during the term. Some came from local colleges and secondary schools as part of their courses in early childhood education and child health and care. Others were unemployed youngsters taking part in community enterprise and job experience schemes. A secondary school boy was designing and constructing furniture for severely handicapped children in one nursery as part of an 'A' level course. Such additional help was irregular and not available all year but staff generally found it very valuable and also felt it provided valuable experience for the young people involved.

ACCOMMODATION

Nature of the Accommodation

Most special nursery classes consisted of a single room with a small separate room available for quiet activities. Where the main nursery area was large, a room divider or partition had usually been set up. The two largest units had two rooms with half of the children in each. Although many special nursery classes were purpose-built, they resembled ordinary nursery classes with few modifications. Some toilets may have been designed for handicapped children and were generally situated much closer to the class than in ordinary nurseries. Changing facilities and sluice systems had been installed where necessary. Some units with physically handicapped children used special apparatus and furniture, often designed and constructed by school staff and parents.

Most of the teachers interviewed expressed the need for more space. They felt that children with special needs required more individual space than non-handicapped children. Those who were only partially mobile, for example, needed more room to manoeuvre. Toilet and changing facilities were reported to be inadequate in several classes. Some teachers were concerned that children had no privacy

when using these facilities. The other main alteration requested by staff was similar to the need expressed by many staff in charge of ordinary nursery units, for improved or increased outdoor play areas or a covered outdoor area for use on wet days.

Noise Level

In contrast to the normal nursery units, where many felt that the noise level could be detrimental to children with special needs, some of the special nursery class teachers were concerned about the lack of noise. Several felt that the children did not communicate enough or move around as much as they could and this was attributed to emotional rather than physical factors. Seven of those staff interviewed described the level of noise in their unit as 'very low' and two others said it tended to vary between 'average' and 'very low.' Only in two units was the noise level considered to be very high. One of these was a small classroom containing ten children, only two of whom could speak. No suitable quiet area was available and staff commented that it was frequently impossible to carry out one-to-one activities with a child because of the background noise. The second unit described as 'noisy' was used as a right of way by staff and children moving from one part of the main school to another, causing the nursery children to be restless and distractable. The only other comments about high levels of noise concerned specific circumstances when children were having tantrums or phases of persistent screaming, when withdrawal rooms were used.

TRAINING

Qualifications held by teachers in charge of special nursery classes covered a wide range, no two teachers holding the same diplomas or qualifications.

Two of those interviewed held no formal teaching qualifications. One had trained to work in occupation centres before responsibility for the mentally handicapped passed from the Health Authority to Education Department. She was also a qualified nursery nurse. The other had worked in a special school for multiply handicapped children for many years in an unqualified capacity and had attended various in-service courses for teaching the handicapped but she had received no formal teacher training. It must be added that she was greatly admired and respected by the headteacher and staff for her ability to work with young mentally and physically handicapped children who were indeed more severely handicapped than those in any other nursery

class in the sample.

Four teachers in charge had had no training for work with children with special needs or with pre-school children. Three of them had trained as infant teachers and the fourth was a qualified secondary teacher. They felt that their training had not prepared them adequately for their present post and two of them hoped to rectify this by taking a Diploma in Special Education during the next year.

The remaining teachers in charge had all completed basic teacher training courses and had gained additional experience and qualifications in some aspect of special education. It is interesting to note that none had any specific training for teaching pre-school children. Most were trained to teach infant/junior aged children and two were secondary school trained. Unlike teachers in ordinary nursery schools and classes, who will only teach that age group, many teachers in special nursery classes are moved every two or three years to teach another age group within the school. Teaching young handicapped children requires a great deal of patience - progress is likely to be slow and constant revision is necessary to maintain acquired skills and stages of development. Many teachers find it refreshing to change occasionally from one age group to another, where the pace of instruction and the curriculum will be different. Some teachers did, however, prefer to remain in the nursery class and developed considerable expertise at this level.

Teachers interviewed generally agreed that their basic training courses together with practical experience gained since then had prepared them adequately for taking charge of a special nursery class.

PROFESSIONAL SUPPORT

Children in special nursery classes benefit from the professional resources of the main school of which they are a part. Schools for the physically handicapped may have three or four physiotherapists on the staff and they will work with nursery children when necessary. Health visitors tend to contact special nurseries less frequently than ordinary pre-school units but special schools generally have the services of one or two nurses who will also attend to the nursery class.

Similarly, several special schools enjoyed the services of resident speech therapists while two nursery classes shared the benefits of full-time school social workers. Other classes were visited by specialist social workers from, for example, Dr. Barnardo's and the associations for spina bifida and muscular dystrophy.

The role of the educational psychologist in the special nursery classes seemed to depend on the interest of the local psychologist attached to the school. All nursery classes had access to a psychologist who would come to see individual children on request. One half of the units visited reported that this was their only contact with educational psychologists. The other teachers said that psychologists paid regular visits to the main school and would often call in to the nursery class. A nursery class for multiply handicapped children was visited weekly by a psychologist who advised on curriculum and record keeping.

Special nursery classes had contact with a number of other professional bodies depending on the needs of their children. Some, for example, could call upon the services of teachers for the visually and hearing impaired as well as audiologists. Others had regular contact with peripatetic teachers for the mentally handicapped and, where Asian children were attending, with Minority Group Support Services.

Consultant paediatricians and orthopaedic specialists followed up children being treated by them. Children in special nursery classes in Coventry had generally been assessed previously at the Child Development Unit, which would then monitor progress through school. It can, therefore, be seen that children in special nursery classes had access to a wide range of professional people, many of them based in the school itself.

RECORD KEEPING

Staff in special nursery units kept very detailed records on their children which led to individual programmes of work. Each child had a summary record card devised by the Education Department and completed at regular intervals. But each class had also devised its own system of record keeping, most often based on developmental checklists. Some teachers had devised their own system by borrowing

and putting together various parts of published checklists and progress charts to record each child's level of achievement in such areas as language, social skills, cognitive ability and physical and emotional development. An educational psychologist in Birmingham had devised such a system which was being utilised in several special nursery classes.

Record keeping was considered to be very important in most special nursery classes and much time was devoted to developing a system of recording which best reflected a child's strengths and weaknesses, led to a programme of work and allowed for regular assessment of progress. A description of record keeping and assessment in one class for multiply handicapped children will illustrate the depth and diversity of their system. This unit caters for 16 children. A log book is kept on a daily basis to record any significant incidents affecting individual children. Sheridan Stycar forms are completed for some children.. A group of children are about to commence a Distar Programme and another group are already involved in a Portage Programme with their parents at home. Half termly objective assessments are made when staff discuss each child and write narrative reports. Finally, daily diaries are sent home with each child to explain to parents what has taken place in class that day. Parents write down what their child does in the evening or at the weekend. In this way, continuity is maintained between home and school. Parents can discuss school activities with the children and the nursery staff can question the child about particular home activities, thus setting up a dialogue which would otherwise be impossible.

NURSERY POLICY

While most ordinary nursery schools and classes accepted children from the age of three years, special nursery classes generally offered places to children from the age of two years. Most children, with a few exceptions, were full-time attenders. Even when a child attended on a part-time basis, it would be for 2, 3 or 4 full days rather than several half days, mainly because of transport difficulties. The length of the school day was found to vary between units. Some classes operated a short day with children attending from 9.30 a.m. until 3.10 p.m. Other children experienced a rather longer school

day, from 9.00 a.m. until 3.30 p.m. in one class. Starting times and closing times tended to be flexible depending of the arrival of taxis and coaches.

Each nursery class had a very wide catchment area. Children in Coventry might cross the city to their nursery class and similar long journeys were experienced by children in Birmingham. Taxis and coaches were provided by the Local Education Authority to transport children to and from school.

Waiting lists for entry to classes were very short and indeed several units had unfilled places. Children on waiting lists were usually too young to attend but would be admitted following their second birthday. All teachers said that suitable children were never refused admission. Most were admitted immediately on referral at any time of the school year. In some nurseries it was policy to stagger a new intake of children over several weeks, taking one child at a time since each required a great deal of intensive, one-to-one contact with staff in order to settle down in a strange environment with unknown adults and children.

PLACEMENT ON LEAVING SPECIAL NURSERY CLASS

Most of the children in special nursery classes remain in the special school system. Many will progress through the school to which their nursery is attached although they may remain in the nursery until the age of six or seven years.

A few children will transfer to another special school which is considered more able to meet their particular needs. For example, a physically handicapped child may prove to be severely mentally handicapped and so not suitable for the physically handicapped school which he has been attending since the age of two years. If a school for children with severe learning difficulties is willing and able to cope with the child's physical disability, he may be transferred there.

Some children are able to return to the mainstream to ordinary education. Among those might have been mildly handicapped children as well as children with temporary handicaps which can be overcome or outgrown, those from poor home backgrounds who make progress in school and, of course, those with no handicapping conditions whose attendance at special school nursery units must be questioned.

As well as visiting nursery classes attached to special schools in Birmingham and Coventry, the research workers also visited several other units which catered for pre-school children with special needs. Two of these units will be discussed in some detail.

UNIT A

This nursery class was attached to a special school for children with language difficulties, up to the age of 11 years. The school is situated near the centre of Birmingham and accepts children from all areas of the city. It is a voluntary aided school, with fees being paid for each child by the Local Education Authority. Children are thoroughly assessed before admission by teachers, speech therapists, psychologists and any other relevant professionals and are only admitted if their language problems are not associated with global mental retardation. This requirement is less rigidly applied to the nursery class children since it is more difficult to determine cause of language problems at this early age.

Pre-School Children - At the time of interviewing, the nursery class contained 7 boys and 2 girls aged from 4 years 4 months to 5 years 11 months. Their specific speech and language problems included articulatory dyspraxia, developmental expressive dysphasia, receptive dysphasia and phonological disorder. Only one child, with expressive and receptive dysphasia, was thought to be mentally handicapped and mildly spastic.

Staff - The nursery class was the responsibility of the headteacher of the school and was staffed by a full-time teacher. In the mornings she was assisted by an unqualified helper and in the afternoons by a nursery nurse. The staff/child ratio was, therefore, very favourable especially since one or two children would often be attending speech therapy.

Parents did not come in to the nursery class to assist. Many children came from distant parts of the city making it difficult for parents to visit. The classroom was also too small to allow regular involvement of parents. The nursery class received no other intermittent help although students did attend classes in the junior school.

Accommodation - The nursery class was housed in a single room which opened on to a sheltered garden. One-to-one activities could be carried out in the teacher's office above the classroom. Nursery class children joined children from the rest of the school for lunch in the main dining room - the only pre-school unit visited where this practice was

observed. The accommodation was felt to be adequate by the class teacher, who also stated that noise level was average for a nursery class and did not interfere with her work with individual children.

Training and Experience - The nursery class teacher had completed a three year course to teach infant/junior children, specialising in special education during her final year. She spent several months in a hospital school for severely educationally subnormal children and four years teaching children with cerebral palsy before teaching children with language difficulties. The unqualified assistant had experience working with children with cerebral palsy and the nursery nurse had previously worked in a school for the deaf where she learnt sign language.

Professional Support - Children were generally referred to the nursery class by clinical medical officers and educational psychologists. The school was served by a local educational psychologist who visited once each week and would see any child on request. Social workers and health visitors rarely visited the nursery class.

Three speech therapists, two full-time and one part-time, were employed in the school. Each nursery class child received speech therapy two or three times per week. Close contact was maintained between the class teacher and the speech therapists. The teacher knew what each child did with the speech therapist and so could reinforce therapy during class activities.

A psychiatrist from a child psychiatric unit in the city visited to see new admissions and any other children on request. Visits were also made at regular intervals by school nurses and doctors, audiologists and dentists.

Record Keeping - Extensive records were kept on each child. The class teacher had access to speech therapy records and could also contribute to them. A weekly record was kept by the teacher on each child, noting progress and activities carried out. This was summarised each term on to a record card devised by the school staff. Six monthly reports were sent to the Local Education Authority, with a copy to parents. On Fridays each child took home a diary telling parents about the week's activities. Parents wrote down what the family did at the weekend so that staff could discuss the weekend's activities with the child on Monday. In this way, a dialogue could be maintained about events at home and school, even where the child had very unclear and indistinct speech.

All records were passed on with the child when he moved to the next class or to another school.

Nursery Policy - Children were accepted into the nursery class from the age of three years. The headteacher had the final say regarding children admitted but her decision was based on a team assessment involving class teacher, speech therapist and psychologist. As already mentioned, children were not admitted if they were mentally or physically handicapped or were known to have behaviour problems.

There was no clearly defined catchment area. Children came to the nursery class from all areas of the city and occasionally from outside the city. Transport was paid by the Local Education Authority.

UNIT B

Unit B was attached to a regional Child Psychiatric Clinic and Teaching Hospital in Birmingham, under the National Health Service. The clinic was primarily established for the in- and out-patient treatment of children suffering from psychiatric/behaviour disorders in which mental retardation was not present.

In 1971, a special pre-school unit was opened within the clinic for the treatment of language disordered children. As in the clinic as a whole, children were not generally admitted if the problem was one of global retardation rather than a specific language disorder. A combination of pressure for places in this unit together with the manifest need for facilities to serve children at an earlier pre-language stage, lead to the opening of a second unit in 1980, called the nursery unit.

Staff - Both classes had very small numbers of children on the register. At the time of interview, the pre-school language class had 5 boys and one girl and the nursery class contained 4 boys. The language class was staffed by one teacher, two State Enrolled nurses and one nursing assistant while the nursery class was staffed by one teacher, one State Enrolled nurse and two nursing assistants. The staff/child ratio was, therefore, excellent, all members of staff being full-time employees.

Parents regularly helped in the classes although there was not usually more than one parent present at a time. Their role was to be generally available for activities with the children and to undertake specific tasks with them, as part of their programme.

These programmes were devised by the teachers, in consultation with the speech therapist and psychologist.

Accommodation - The classes were spacious and considered by the staff to be suitable and to require no changes or additions. The language class had two separate rooms and the nursery class had a large room with a smaller one adjoining. Both classes had access to quiet rooms for one-to-one activity. The teachers felt that the noise level was average but occasionally their work was disrupted by individual children engaging in fits of screaming.

Training and Experience - Neither of the teachers had any specialised training, although both had worked in schools with slow-learning pupils. One teacher was satisfied with her training as preparation for the post she held but the other teacher would have preferred training in Special Education before beginning work with children with severe language difficulties.

Professional Support - The classes were attached to a Psychiatric Clinic and Hospital and so the professional support was extensive and readily accessible. The support team included child psychiatrists, psychologists, a speech therapist, occupational therapists, social workers and psychiatric nursing staff. Major decisions concerning the children in the classes were the responsibility of the consultant child psychiatrist although the class teachers and other staff made important contributions to all decision.

Nursery Policy - In many respects these pre-school classes were similar to other special nursery classes attached to schools. Children were admitted from the age of 2½ years, transport being provided by the Local Education Authority. The hours of opening were similar to special school nursery classes. Written records were kept on all children and were passed on to each child's next placement which was most often a special school or unit although children did occasionally go on to normal infant school.

Other Pre-School Facilities for Children with Special Needs

Several other types of provision should be mentioned in order to complete the picture of pre-school facilities for children with special needs.

In Birmingham and Coventry several ordinary nursery classes contained small units for partially hearing children. These children spent much of the day with 'normal' hearing children and were withdrawn for periods of activity with a teacher for the deaf who was a full-time member of staff. The partially hearing children generally progressed through the ordinary infant and junior schools, which had additional resources to cater for the hearing impaired.

Several playgroups for handicapped children were visited in Birmingham. Three were private playgroups and seven were organised by health visitors in health centres. They tended to cater for children under the age of three, who attended for one half day each week. The children were assessed in the playgroup in order to ascertain the most suitable future placement. Some children were identified as 'at risk' at birth, others were developmentally delayed.

Partially sighted and blind children could be similarly assessed in a nursery organised by the University of Birmingham. This unit caters for some sixteen children who are blind or partially sighted and aged between twelve months and four years six months. The children generally attend the nursery once each week and may attend local facilities in their neighbourhood on the other days. Parent involvement is actively encouraged. As well as providing assessment facilities and parental support and counselling, this special unit also carries out a valuable and extensive programme of research.

Pre-school children with special needs may undergo a period of intensive multi-disciplinary assessment in order to ascertain the most appropriate nursery and infant school placement. This is carried out in Coventry at the Child Development Unit attached to Gulson Road Hospital. Children attend for short-term assessment (approximately three weeks) or for longer term observation. Within this nursery class setting, children are assessed by teaching staff, specialists with skills relevant to particular handicapping conditions. This team recommend the most suitable placement and a detailed report is sent to the unit or class concerned. In Birmingham, such assessments are carried out at the Children's Hospital.

CHAPTER 8.

Observational Study of Children with Special Needs

INTRODUCTION

An observational study was carried out to investigate what happens to children with special needs when they are placed in ordinary pre-school units. Interviewing staff can reveal a great deal about a child's ability to function within the unit but only direct structured observation can give a more objective account of that child's integration into what is a highly complex environment.

As well as studying children with special needs, 'normal' children perceived by staff as having no handicapping conditions were also observed. Comparisons could then be made between a 'handicapped' child and non-handicapped child within the same unit and so provide guidelines for the interpretation of the findings. For example, it may be observed that a particular child with special needs receives a great deal of attention from staff and this could be attributed to the handicapping condition. But if the control child also receives a large amount of staff attention then this would suggest that the additional attention given to the child with special needs may not be because of his handicapping condition.

SELECTION OF CHILDREN

Children were selected for the observational study from the lists of names of those perceived as having special needs by the nursery staff. Because the interviews were conducted and names collected during the spring term of 1980 and observation began in the autumn term of that year, many children had left their nursery unit to go to infant school and, in a few cases, to a special unit. The sample from which children suitable for observation could be drawn was further restricted by a decision that they be expected to go to infant school in January 1981, which would allow a follow-up study in the reception class to be carried out. This requirement also meant that all of the children had had at least one term in the nursery and most had been attending for a year. This is especially important in the case of withdrawn children whose behaviour might be acceptable on admission but would cause concern if it persisted after

several months in the nursery. It also meant that the children had settled down in the nursery and any additional staff attention which some children may have received on admission was likely to have stopped.

All of the children selected for observation attended ordinary pre-school units in the research area of Birmingham. They were selected to cover a range of special needs. There were, however, no children with perceived hearing difficulty attending ordinary pre-school units in the area nor were there any children perceived as having superior intellectual ability or talent. The few children who had been referred for these reasons had moved on to infant school. Fewer girls were perceived as having special needs, especially in the categories of physical, mental and sensory handicap and over-reactive behaviour problems.

No child was observed where second language difficulties presented the only need for that child since this was not within the remit of the present study but several children observed with various handicapping conditions did have additional second language problems.

Children with Special Needs

Seventeen children were selected for observation. Eleven of these children had special needs which had been assessed by a doctor, psychologist or speech therapist. The remaining six had been perceived by staff as having special needs and formal assessment had been requested.

Table 12 shows the categories of special need into which the children were placed. Names of the children have been changed for reasons of confidentiality and, as can be seen from the comments, most suffered from more than one handicapping condition.

The group of children attended six nursery schools, five nursery classes, three day nurseries and one playgroup (one class and one day nursery each had two children). Only one playgroup could be included because of the small number of children perceived by playgroup leaders as having special needs. Parental permission was obtained for each child and a short parental interview was carried out. Additional information was also sought from nursery staff concerning the child's admission, any special requirements made within the nursery and support received from outside agencies.

TABLE 12

CHILDREN WITH SPECIAL NEEDS OBSERVED IN ORDINARY UNITS

CHILD	SEX	UNIT	SPECIAL NEED *	COMMENTS
Martin	Boy	Nursery Class	3c 5c 7b	Assessed by psychologist and speech therapist
Sarah	Girl	Nursery School	7a	Assessed by psychologist
Andrew	Boy	Nursery School	3a	Assessed by speech therapist. Hare lip/cleft palate : repaired
Khalid	Boy	Nursery Class	4e 3d	Medical assessment. One arm foreshortened
Norman	Boy	Nursery School	3c 4c 4e 5c 7b	Medical & psychological assess. Congenital limb deformity; meningitis led to behaviour regression, language delay and suspected mental handicap
Fiona	Girl	Nursery School	7c	No assessment
Baljit	Girl	Nursery School	3d 5c 7a	No assessment
Richard	Boy	Nursery Class	1b 7b	Assessed by psychologist. Albino West Indian child
Daniel	Boy	Day Nursery	3c	No assessment
Albert	Boy	Playgroup	1b	Medical assessment - congenital bilateral cateracts
Marvin	Boy	Day Nursery	5c	Assessed by clinical medical officer & speech therapist
Thomas	Boy	Day Nursery	7b	No assessment
Balwinder	Boy	Nursery Class	4e	Medical assessment. Partial paralysis
Nirmal	Boy	Nursery Class	3d 7a	No assessment
Harjinder	Boy	Nursery School	4a	Medical assessment. Cerebral palsy affecting left side
Sandeep	Boy	Nursery Class	3a 3d	Assessed by speech therapist. Articulatory defect
Bobby	Boy	Day Nursery	3a [illegible]	Medical assessment

* See appendix for details of categories of special need

Fourteen of the children attended nursery schools and classes and day nurseries on a full-time basis. Martin and Balwinder attended nursery classes part-time while Albert attended playgroup every afternoon.

The children ranged in age from 3 years 8 months to 4 years 8 months. Those in day nurseries had been attending for the longest time. All had completed at least 2½ years in day nursery with the exception of Thomas who had been attending for 3½ years, since the age of 9 months. Only three children had been attending nursery schools and classes or playgroup for more than 3 terms. Fiona and Richard had completed 5 terms in a nursery school and class respectively and Norman had spent 6 terms in nursery school.

Control Children

Each child with special needs was paired with a control child in the same nursery unit who was perceived by staff as having no special needs. The control child in each instance was the same sex as the child with special needs, of the same ethnic origin and attended at the same time of day. Thereafter, they were matched as closely as possible for age and length of time attending nursery. The person in charge of the unit selected all the children who met these criteria and the observer then chose one at random to serve as control. In some units there were only one or two suitable children but in most units there were at least six potential controls. Again, parental permission was obtained before observations began.

OBSERVATION SCHEDULE

An instrument was developed which would be sensitive to differences between the target and control children within the pre-school unit and so indicate the degree of integration experienced by the former. Focus was on activity of the children, their social interactions and their ability to play together as well as on attention received from adults.

The observation schedule involved sampling the children's behaviour at regular intervals and recording by means of clearly defined categories. The nursery unit is a highly complex and active environment. Some 60 children and adults may be busily occupied in a large open plan area, the noise level is likely to be high and

many activities will be going on simultaneously. Unless some structure is imposed on observation, recording of children's behaviour is likely, in such a setting, to be subjective, biased and incomplete.

Time sampled observations help to focus the observer's attention and increase reliability and objectivity in recording by using clearly defined categories of behaviour which have been thoroughly learnt in training. During the observation session, decision-making and, therefore, subjectivity are reduced to a minimum. Reliability of the observation instrument and of the observers' recordings can be easily calculated and biases or misperceptions eliminated.

Pilot work was conducted over a three month period in a large nursery school during which categories of behaviour were defined, tested and modified. The categories used will be discussed briefly. Full details are contained in the manual (Appendix IV).

Interaction Categories

Both verbal and non-verbal interactions were recorded since it was felt that the latter might be especially important for some children with special needs. The first two 'turns' in an interaction involving the target child were recorded i.e. the initiation and the response. The observer noted who made the initiation and response (child, peer or adult) and whether it was verbal/non-verbal and positive/negative.

Using these categories, several important aspects of a child's interactions can be examined. For example :

a. How often the child initiates positive and negative interactions with peers and adults and vice versa.

b. How often the child initiates an interaction with others and gets no response.

c. Whether the child is frequently physically aggressive towards other children by initiating negative non-verbal interactions. How often other children are aggressive towards the target child.

d. Whether the child initiates many interactions with adults which gives some measure of how demanding a child is of adult attention.

Categories of Activity

Categories were designed which, by definition, were mutually exclusive and exhaustive. They covered every activity a nursery child could possibly be engaged in at any moment in time. The fourteen categories were as follows :

1. Fine perceptual-motor (creative) : unstructured fine perceptual-motor activity; no rigid rules; no right/ wrong distinction.

2. Fine perceptual-motor (structured) : fine perceptual-motor activity with rigid rules and goals; clear right/ wrong distinction since there are limited acceptable outcomes.

3. Gross physical activity : movement over the ground without use of toys or other equipment. Includes running, hopping, jumping and walking.

4. Gross perceptual-motor : gross movement involving toys or equipment.

5. Imaginative play : child is involved in fantasy, has adopted the role of a particular person and is acting the part or is pretending that an object represents something else.

6. Book/story activity : child is a) listening to a story being read b) 'reading' by himself c) listening to a taped or recorded story d) listening to an adult talk about a topic of interest.

7. Small group activity : two or more children involved in association without the controlling presence of an adult. Includes rough and tumble, peek-a-boo and hide and seek.

8. Looking, listening and waiting : the child is inactive and is looking at or listening to others, waiting for equipment to arrive or an activity to begin.

9. Music and dancing : a) listening to music on tape, record, television or piano b) participating in songs, dancing, movement to music, singing games.

10. Helping an adult : to organise, fetch and tidy away equipment at the request of the adult.

11. Toilet/washing activites : includes going to the toilet area, using the toilet, sink or mirror, queueing to leave the toilet area.

12. Snacks : includes waiting for snacks to be served and eating and drinking.

13. Conversing : child is talking to adult or peer and doing nothing else.

14. Non-specific activity : child is wandering aimlessly, not involved in any activity which could be included in the above categories.

These categories are based on a schedule by Lomax (1979) and used in the Scottish study. It should be noted that the observer is not, in practice, required to deal with all 14 categories throughout the entire session since at least 6 categories occur infrequently and when they do, they occur in consecutive recordings over several minutes. Such activities include snack time, toilet and washing and music groups.

Location Categories

Five categories of 'social location' were used to assess the child's involvement with others in the nursery. In solitary play, the child is alone. Parten (1932) distinguished between parallel and associative play, the latter being a more sociable situation where children are playing with each other rather than alongside each other. In parallel play the children are engaged in the same activity within conversational distance of each other but they are engaged quite independently with no co-operation or role taking. Parten's categories of parallel and associative play were used in this schedule. The fourth category of group activity refers to two or more children together with a controlling adult; the group had not been formed spontaneously by the children. Finally, activities involving a target child alone with an adult were noted.

OBSERVATION PROCEDURE

An important feature of time sampled observations is the interval between recordings. The length of the interval is determined by the subjects and the area of interest. In the present study, after experimenting with various intervals, it was decided to observe and record every 30 seconds. A shorter interval was unnecessary because the child usually attends to one activity for at least 30 seconds and often longer. A longer interval was also undesirable because it would not be semitive to the over-active child with limited concentration who cannot remain in one place for long.

One observation of activity, interaction and social location was made, therefore, every thirty seconds. Twenty seconds were available for observing and ten seconds for recording (see manual for details).

The child with special needs and the control child were observed during 80 minutes in the nursery as follows - one child was observed continuously for 20 minutes (i.e. 40 observations) then the other child would be observed for 20 minutes. This procedure was repeated, giving 80 observations per child during each session.

Each pair was observed on three separate occasions with the exception of Andrew and Khalid. Andrew was ill with several minor ailments in succession and so stopped attending nursery. Khalid was taken on an unexpected holiday to Pakistan which lasted for 6 months. These children were each observed on two occasions. As far as possible, allowing for illness, absenteeism and holidays, the three observations with each pair were conducted at fortnightly intervals.

Observations were carried out during both morning and afternoon sessions, avoiding settling down periods and 'preparing to go home' times. All of the nursery units operated a 'free play' regime for most of the day in which children were free to choose from a wide range of activities available, both indoors and outdoors, and were occasionally organised into group activity for short periods.

RELIABILITY OF THE SCHEDULE

Before observations began, reliability of the observation schedule was determined by two trained observers who recorded the behaviour of the same child simultaneously. Reliability was calculated using the formula

$$\frac{\text{Number of agreements}}{\text{Number of agreements + number of disagreements}} \times \frac{100}{1}$$

Agreement for activity and location reached 100 per cent and for interaction, which is more complex, agreement varied between 80 and 95 per cent. Disagreement was most often due to one observer missing the first interaction during the 20 second interval and so recording the second which could be quite different.

Observation data was collected by two observers, one having devised the schedule and the other being trained until reliability reached a satisfactory level. Occasional checks were made throughout the study in order to maintain a high level of reliability.

RESULTS

The data obtained during each of the three sessions was very similar i.e. no trend appeared in the data collected for each child during sessions one, two and three. If there had been influential observer effects the data from session one would have been most atypical, when the observer was an unfamiliar figure in the nursery and most likely to distract the children. Since no such trend emerged, data from the three sessions were, therefore, summed and considered together.

Social Location

Table 13 shows the mean number of observations for each social location and it can be seen that there is very little difference between the handicapped and control children as groups. There is a slight tendency for children with special needs to spend more time in solitary activity than control children and less time in group activity but these differences are not statistically significant.

TABLE 13

MEAN PERCENTAGE OF TIME SPENT IN EACH SOCIAL LOCATION

	Solitary	Parallel	Associative	Group	Adult
Special Needs	28.2	14.3	9.3	41.3	6.5
Control	21.9	14.8	8.3	49.5	5.5

Solitary Activity : 10 of the 17 children with special needs spent more time alone than their control children. Three target children spent at least 45 per cent of their time alone while only one control child spent more than 29 per cent of time in solitary activity. Of these three children, Martin and Norman are over-reactive boys whose aggressive outbursts disrupted the play of others. Nirmal is under-reactive and withdrawn and was found to spend 54 per cent of his time in solitary activity.

Parallel and Associative Activity : All of the children spent some time playing alongside or with other children. There was no difference between the handicapped and control children as groups in the amount of time spent in parallel and associative play nor were there any clear differences according to type of handicapping condition. The four children who spent considerably less time with peers than their controls were Martin, Susan, Fiona and David. Each was perceived by staff to have communication problems - Martin was developmentally delayed with poor speech, Susan was very withdrawn, Fiona was described as very demanding of adult attention but unable to relate to peers and David had language difficulties. It is possible that communication problems prohibited them from joining in the activities of their peers. On the other hand, Bobby, Sandeep, Marvin, Baljit and Andrew all engaged in parallel and associative play to the same extent as their controls even although each of them had speech or language difficulties. Nirmal, the child perceived to be very withdrawn, spent only 5 per cent of his time with peers.

Group Activity : For the majority of the children in both groups over all three sessions the greatest proportion of time was spent in group activity. The control children spent between 35 per cent and 66 per cent of time in this location. While there was no overall significant difference between the two groups, ten children with special needs

spent less time in group activity than their controls and four of them spent less than 35 per cent of their time in group activity. Norman and Richard (8%) and Martin (18%) are all over-reactive boys who do not enjoy the restrictions imposed by teacher-directed group activity. It should be noted that in the nursery units attended by these children, much of the group activity is optional. Teachers set up group activities and children are free to join in if they wish. Norman, Richard and Martin are, therefore, able to avoid involvement. The control children in these units chose to join in group activity much more frequently (40 - 47% of their time). In other units where children are directed towards more group involvement, children with special needs, including those with behaviour problems, will be found within the groups. The actual extent of their participation and contribution to the group activity may, however, be limited as will be discussed later.

Alone with an Adult : This social location takes up the least amount of time for the majority of children in both groups, an average of 6 per cent. This finding would be expected considering the large groups of children for which adults are responsible. Once again, there is no significant difference between the two groups as a whole in the amount of individual adult attention received but there are some interesting findings related to handicapping conditions.

Susan, Andrew and Fiona all have communication problems but they spent no time alone with an adult during observation. Fiona was demanding in her questioning of adults but she received no individual attention. On the other hand, Martin, Richard and Norman, over-reactive boys who took least part in group activity, all received much more individual attention from adults than their controls. Indeed, Richard spent as much as 25 per cent of his time alone with adults. This would suggest that children with acting-out behaviour problems and low levels of concentration demand more than their fair share of adult attention to the detriment of the 'ordinary' children. Withdrawn children whose behaviour presents no obvious and immediate problem to staff, receive very little individual attention when they, in fact, would probably benefit from such stimulation.

Activity

The activities of the children with special needs were very similar to those of the control children. Two activities which did reveal differences between the mean percentage of time for target and control children were book/stories (6) and looking/waiting (8). As can

be seen from table 14 , control children as a group were more likely to spend time in book and story activities than children with special needs (p .05). Children with special needs, however, as a group spent significantly more time looking at and listening to others and waiting than did control children (p 0.5). Nirmal, who spent a large amount of time alone, was found to spend 60 per cent of his time looking at others and not actively involved in anything himself.

TABLE 14

AVERAGE PERCENTAGE OF TIME SPENT ON EACH ACTIVITY

ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Special Needs	11.7	6.5	7.5	12.4	4.4	9.4	1.3	17.9	4.2	2.3	3.1	8.6	1.0	5.4
Controls	11.5	7.2	7.6	9.2	4.1	14.3	0.6	13.1	6.9	2.7	4.7	8.2	1.1	4.3

* for definition of 14 categories, see page

In what seems to be a very busy environment, a surprisingly large proportion of time was spent by both groups either unoccupied or involved in routine nursery tasks. The 14 categories can be divided into two groups. There are the active categories where children are involved in learning/play situations and these are :

1. Fine perceptual-motor (creative)
2. Fine perceptual-motor (structured)
3. Gross physical activity
4. Gross perceptual-motor
5. Imaginative play
6. Book/story activity
7. Small group activity
9. Music and dance
13. Conversing

The second group includes categories of inactivity and of nursery routine :

8. Looking, listening and waiting
10. Helping an adult to tidy up or fetch equipment
11. Toilet/washing
12. Snacks
14. Non-specific activity

For some children, especially those recently admitted, categories 8, 11 and 12 may be learning situations but for most of the older children observed, these activities were now repetitive and routine. In some pre-school units snack time continues to be an opportunity for group discussion and learning but in most it was found to lack real stimulation.

Twenty-six of the 34 children observed spent at least 25 per cent of their time either unoccupied or engaged in routine tasks. Five children with special needs and two control children spent 50 per cent or more of their time in this way. Indeed, Nirmal was unoccupied or routinely engaged for 76 per cent of the observation sessions. It is likely that for some children these percentages would be even higher since many of the observations of gross physical activity were of aimless movement around the nursery or playground yet were included in the amount of 'active' behaviour.

Interaction

Many of the children with special needs observed appeared to have communication problems, not only those perceived by staff as having speech and language difficulties but also some of those with other handicapping conditions. There were, however, too few recorded instances of interaction for each child to allow meaningful statistical analysis and interpretation of the findings. No firm conclusions can, therefore, be drawn but the data did indicate the need to study communication difficulties more closely. A short study focusing on language and interaction in the nursery is described in a later chapter.

SUMMARY

1. As a group, the children with special needs were observed to engage in similar activities and in similar social locations as control children. Two significant differences emerged. Children with special needs spent more time looking, listening and waiting than control children. Control children were more likely to engage in book and story activities.
2. There were interesting differences in activity and location within pairs of children, related to the target child's handicapping condition. For example, some over-reactive children were found to engage in very little group activity but to receive much more individual adult attention than their controls. Under-reactive

children were much more likely to play alone and to receive little attention from peers and adults.

3. The majority of children spent at least a quarter of the time observed either unoccupied or engaged in routine nursery activities and for some children with special needs, this proportion was much higher.

CHAPTER 9

Interviews of Parents and Infant School Teachers

A short structured interview was carried out of the parents of children with special needs who were involved in the observational study in Birmingham, described in the previous chapter. Questions concerned factors influencing parental choice of pre-school unit, special provision made by the nursery staff, satisfaction with the provision made and attitudes towards special units for children with handicapping conditions. The interview schedule is contained in the Appendix.

This interview was also conducted with a small sample of parents in Coventry whose children had been assessed at the Child Development Unit and had subsequently been placed in ordinary pre-school units.

Most of the children with special needs in the observational study were expected to have moved on from pre-school to infant school by the spring term of 1981 and interviews of their reception class teachers were carried out during the summer term of that year. The majority of these children, however, were retained for a further term or more in pre-school. They were not considered ready to move on to infant school because they showed delayed development in one or more areas and/or immature behaviour. It was hoped by the staff that they would make sufficient progress during additional months in a pre-school unit and be more adequately equipped for the demands of the reception class situation. A follow-up interview was conducted of the teachers of those children who did transfer to infant school at the expected time.

PARENTAL INTERVIEWS IN BIRMINGHAM

Sample

Interviews were conducted with the parents of 13 of the 17 children with special needs involved in the observational study. The parents of four children were not interviewed for the following reasons. Khalid, as already discussed, left for an extended holiday in Pakistan before the study ended and so his parents were not available for interview. Two boys had unmarried mothers who were under considerable stress and were receiving psychiatric treatment and so they were not

interviewed. The fourth child had been causing the staff some concern because of 'odd behaviour' and an inability to relate to other children but they had not yet discussed this fully with the child's parents who were unaware of the difficulties. The research workers did not, therefore, feel, under these circumstances, that an interview would be appropriate. although permission had been obtained to observe.

Procedure

The parental interview was carried out in the home unless parents expressed a preference to meet the research worker in their child's nursery. Evening visits were usually arranged to allow both father and mother to be present if they wished. The parents had already met the research worker when permission was given for their children to be observed in the nursery unit and the interview was conducted at the end of the observational study.

Choice of Pre-School Unit

In most cases, parents placed their children in pre-school units without any professional advice or assistance. They chose the unit which was closest to home or which their older children had attended. Some parents said that they had no choice since there was only one unit in their area but, in fact, they were often unaware of other facilities nearby. Three parents made a positive decision to send their children to local nursery schools rather than playgroups because they felt that nursery staff were more highly trained to help their children overcome speech and language problems. Only three children were priority admissions, the remainder being admitted to pre-school units in the normal way.

Special Provision in the Pre-School Unit

Most of the parents said that their children were receiving no professional assistance at the time of interviewing. Three parents attended speech therapy clinics weekly with their children and two others took their children for physiotherapy. Surprisingly, the parents of eleven children claimed that no special provision was being made for their children by nursery staff and some failed to mention special attention which nursery staff had described to the research worker and which the research worker had often observed. For example, a special programme had been devised by a peripatetic physiotherapist for a child with mild cerebral palsy; the physiotherapist still visited the child regularly in the nursery and gave specific instructions

to staff who continued the programme themselves. This was not, however, mentioned by the child's parents.

In spite of the fact that most parents were unaware of, or at least failed to mention, any special provision being made for their children, nine of them said they were satisfied with the provision. Four parents whose children had speech and language difficulties felt that more could be done in this area to help their children. They seemed to be making very slow progress at speech therapy sessions and parents said that staff in the nursery had too little time to spend with individual problems because of the large numbers of children with whom they had to deal.

Attitudes Towards Special Nursery Units

Considering that the parents of nine children said they were satisfied with the provision being made within the ordinary pre-school units, their attitudes towards special pre-school units appear to be contradictory. Five parents said they would definitely accept a place for their child in a special nursery class, four parents said they would consider it and only four parents would reject such an offer. On further questioning, it emerged that the nine parents who said they would accept, or at least consider, a place for their children in a special nursery unit, felt that the provision made by the staff in the ordinary unit was adequate within the resources available but that their children would benefit much more from the better staff/child ratio and professional support available in special units. The only negative aspect of a special nursery place for some parents was the distance which their children might have to travel each day in order to attend. Only one parent commented that her son might be disadvantaged by losing contact with 'ordinary' children but she still felt that the benefits of a special nursery placement in terms of 'better education' would outweigh this.

Many parents clearly viewed special provision as a temporary situation. Intensive stimulation and professional intervention for one or two years would hopefully compensate for any potentially handicapping condition which a child might have, particularly if only speech and language were delayed, and so enable the child to return to ordinary infant and junior school. Without this additional help at an early age, parents were worried that their children might never 'catch up' with their peers and so continue to struggle and fail throughout primary school, perhaps even transferring to a special school later, when the difficulties are likely to be much greater.

PARENTAL INTERVIEWS IN COVENTRY

In Coventry, while there was agreement to take part in the main study, concern had been expressed should the full names or identity of children perceived as having special needs by the staff be divulged without prior parental permission. It was, however, possible to proceed with the staff interviews and obtaining estimates of children perceived as having different types of special need. It was felt that the research team might be able to obtain information on the children who, having been referred to the Child Development Unit, had subsequently been placed in ordinary pre-school units and that this could include parental interviews.

The necessity for parental permission to be obtained prior to any contact between the research team and the parents was understandable since some children, when seen in the unit, might have been found to have minor or passing difficulties or their parents might not wish the ordinary unit to know of such involvement. A list was prepared of children likely to be in pre-school units or reception classes who had been assessed at the Child Development Unit and who had been placed initially in ordinary units. Unfortunately, it was found that only a limited number of children were still in ordinary pre-school units or reception classes, others having moved on to second year infant classes or to special schools. Twenty-eight parents were contacted by letter. Only five parents sent a positive reply to the request for an interview and they were visited by a research worker. One couple were found to be of low intelligence and unable to understand and respond to questions regarding their mentally handicapped son and so only four interviews were completed. This 'self-selected' sample of parents is likely to be biased and unrepresentative of the population as a whole and so generalisations cannot be made but they provided interesting and relevant information which will be discussed as brief case studies. The names of children have been changed for reasons of confidentiality.

Charles

Charles was described by his parents as delayed in general development and especially in language acquisition. Medical investigations found no apparent physical reason for this and, following assessment at the Child Development Unit, he began attending a local nursery class. Speech therapy failed to produce any significant progress and was discontinued for six months. At the time of interviewing, he was receivng no special attention or professional support. Although still considerably retarded in development compared with his twin sister, his parents were

happy with his placement since they wanted him to be with 'ordinary' children. It was thought that he would be retained in the nursery class when his sister moved on to reception class because of his slow progress.

Garry

Garry's mother was concerned about his slow development during the first 18 months of his life since he reached each maturational milestone later than his peers and had acquired no vocabulary, but doctors reassured her that nothing was wrong. Then deterioration in his physical condition over several weeks resulted in hospitalisation and an emergency operation to remove a blood clot from his brain, the operation being followed by hydrocephalus and meningitis. The extent of the resulting brain damage was not known and after a period of assessment at the Child Development Unit he began attending a local nursery class.

No special provision was made for Garry in the nursery class, apart from weekly speech therapy. His parents did not want any additional provision to be made for him since they felt this would have been noticed by the other children and single him out as being different. At the age of 4½ years he was transferred to a special school since he still had very poor language skills and was assessed by an educational psychologist as mildly mentally handicapped. At the time of the interview, Garry had completed one year in special school and had made remarkable progress, being in a class of 12 children with three adults. In retrospect, his parents wish that he had received special education sooner since they feel he would have made much more progress in his pre-school years but they did not know about the existence of a special nursery class or the extent of their child's problems.

Shirley

Shirley suffered from several physical problems during her first 3 years - thyroid deficiency, a heart murmur and recurrent ear infections. She appeared to be slow in general development and the Child Development Unit recommended priority admission to a local nursery class. No special provision was made by the nursery staff but a nurse visited weekly to monitor her physical condition. Her parents were prepared to consider a special nursery class place for her had she failed to make progress but at the age of 4 years she was admitted to an ordinary infant school.

Pauline

Pauline suffered from a rare congenital deformity of the lower limbs which caused her to be very unstable and liable to fall easily. Operations at regular intervals until adulthood would hopefully remedy the disability. Pauline was admitted in the normal way to a nearby nursery class. The headteacher knew about her physical disability since three older siblings attended the school and she and her staff

were very willing to accept Pauline into the nursery class. The staff watched over her closely to ensure she came to no harm especially during outside play activities but apart from that no special provision was necessary for her. Her mother was pleased that the local school were able to make this additional effort to allow Pauline to attend since she 'benefited so much by having friends in the neighbourhood and by being treated as normal.' Because she had integrated successfully into the nursery class, it was expected that she would move on to the reception class in the same school.

Summary of Parental Interviews in Birmingham and Coventry

Interviews of parents revealed a highly complex situation with many inter-related factors contributing to their views regarding pre-school provision for children with special needs, factors such as the severity of handicap, knowledge of facilities available, willingness of local pre-school units to accept children with special needs, information received from consultants and other professionals, and so on. While the sample of parents was relatively small in the two research areas, several issues were highlighted and can be summarised as follows :

1. Lack of information regarding facilities available - Many parents stated that their child went to a particular pre-school unit because that was the only one available in the area. In most cases, the research worker was aware of several other units in the neighbourhood which would have been suitable but the parents did not know of their existence. In addition, some parents were unaware of the availability of special pre-school units and the provision of free transport to and from these units. All parents should be given full information regarding available pre-school provision, especially those with young children with special needs, in order that they can be involved in any decisions regarding the most suitable placement within the facilities and resources available.

2. Lack of information regarding special provision being made for their children - Parents were able to report that their children attended speech therapy since they themselves would take the child to his weekly session. But many parents appeared to be unaware of special provision being made by the nursery staff within the unit, even where this was quite intensive. Closer contact and the passing of information between staff and parents could allow the latter to follow up work carried out in nursery with home programmes. This is an important feature of many special nursery classes, as discussed in chapter 7.

3. Ordinary pre-school unit or special pre-school unit - Many parents of children with special needs had clearly considered this choice carefully. Some parents would be reluctant to send their young children on long daily journeys to and from special units, others commented that their children would be isolated from neighbourhood friendship groups if they attended special units several miles from home and the segregation from ordinary, non-handicapped children would concern many parents. Yet the majority of those interviewed would have considered a special nursery place if offered in order that their children might receive more intensive one-to-one stimulation from staff together with the services of professional and advisory staff. It would appear that parents would ideally opt for special units within ordinary pre-schools so that their children could remain in the neighbourhood, mixing with non-handicapped peers and maintaining local friendships but also benefiting from additional staff attention and expertise and professional support within the unit.

INTERVIEWS OF TEACHERS OF CHILDREN WITH SPECIAL NEEDS ATTENDING INFANT SCHOOLS

Most of the 17 children with special needs involved in the observational study were expected to move on to infant school in the spring term of 1981 and a follow-up interview of infant class teachers was planned. However, only five children transferred to infant schools at this time. Of the others, most had been retained in nursery because they were considered by the staff to be too immature to cope with reception class. Some had specific difficulties related to their handicapping conditions and it was hoped that one or two additional terms in pre-school would prepare them more adequately for infant school. Two multiply handicapped children were awaiting special infant school places and another child was to be transferred to a special nursery class.

It follows, therefore, that the five children who moved on to infant school at the expected time were either less severely handicapped or had learned to cope more successfully with their handicapping condition. A research worker visited the infant schools of these children after they had been attending for at least one term and interviewed their class teachers. Questions concerned information received from pre-school units, teachers' perceptions of special needs, if any, special provision being made in class and support from outside professionals. Parental permission was obtained for each child and teachers were not

given any information regarding the children's special needs while in pre-school units. Each child will be discussed separately since they suffered from different handicapping conditions and varying degrees of disability.

Marvin

Marvin had been perceived by day nursery staff and assessed by an educational psychologist as mentally retarded but there was no apparent physical cause. The infant class teacher had received a medical card from the day nursery and the psychologist's report.

Progress in infant school - Marvin was behind his peers in most school work but was making some progress in spite of rather erratic attendance. School staff viewed Marvin as a 'deprivation rather than retardation case' and hoped that he would remain in an ordinary school.

Special provision - As well as weekly speech therapy, Marvin was attending special language classes and his progress was being monitored by an educational psychologist. In addition, the class teacher gave him extra attention and spent several break times with him individually to encourage reading and writing skills. His short attention span hindered his work in class but he responded well to a one-to-one situation.

Prognosis - Staff hope he will stay in the ordinary school system but he is being retained in reception class for an extra term because of his slow progress.

Susan

Susan suffered from asthma and eczema and was described by nursery school staff as a very withdrawn and immature child who rarely spoke. The nursery school headteacher would have preferred to keep her in nursery for another term but her parents wanted her to begin infant school with the other children in her age group. The reception class teacher received the local authority record card on her admission.

Progress in infant school - The class teacher commented that Susan's asthma gave cause for concern and resulted in many days absence from school but she did not at any time mention withdrawn behaviour, saying that she had settled down well and was able to stand up for herself despite being extremely small.

Special provision - Susan was under the care of medical specialists and made regular hospital visits. In school, the class teacher devoted extra time to help her with reading in order to compensate for time lost through illness.

Prognosis - Susan was keeping up with her peers even although she was often absent from school. Her class teacher was willing to give her additional assistance in order to help her maintain progress.

Andrew

Nursery school staff found Andrew's speech very difficult to understand following operations to repair a cleft palate and hare lip. His reception class teacher received the standard local authority record card which made no specific reference to physical abilities or his handicapping condition.

Progress in infant school - Andrew still had problems with speech but the class teacher described him as sensible and well-integrated. He was uninhibited and willing to speak and most of the time he could be understood.

Special provision - He still attended speech therapy weekly with his mother but had been making such rapid progress that therapy was to be discontinued for six weeks. His mother passed on to the teacher any information which she received from the speech therapist and the teacher then emphasised letter sounds and pronounciation, giving him individual attention when possible.

Prognosis - Reading skills were developing rapidly and Andrew was observed to be very advanced in perceptual-motor skills. His confident out-going personality was helping him to overcome his speech defect and it was not envisaged that he would have difficulties in ordinary school as a result of this handicapping condition.

Balwinder

This boy was partially paralysed with weakness in one side of his body. The reception class teacher received the standard record card from the nursery class which he attended together with medical cards and samples of his drawing. Because Balwinder attended nursery class in the same school, the reception class teacher received a great deal of information about him orally from the nursery class teacher.

Progress in infant school - Balwinder had settled down in infant school and had several friends. He was beginning to read and write but number work was very limited. His perceptual-motor ability and co-ordination were still affected by the paralysis.

Special provision - Balwinder received regular physiotherapy in hospital and also visited medical specialists. No special provision was made for him in school although his teacher tried to encourage use of his weak side when possible.

Prognosis - The class teacher felt that he would complete infant school but he would probably require additional help in order to cope with junior school since he progressed slowly in comparison with his peers.

Albert

Albert was partially sighted as a result of congenital bilateral cataracts. The reception class teacher received no written information about Albert when he was admitted but did discuss his problems with his playgroup leader.

Progress in infant school - Albert is making satisfactory progress in school although his teacher described him as a 'loner' who did not integrate well with his peers.

Special provision - Progress was being monitored by a peripatetic teacher for the partially sighted who visited the school regularly. Apart from ensuring that Albert can see the blackboard, no special provision was made by the class teacher.

Prognosis - It was envisaged that Albert will remain in the ordinary school system throughout his education.

CHAPTER 10

Study of Communication in the Nursery

INTRODUCTION

The observational study in Birmingham of children with special needs revealed that many of these children suffered communication difficulties of some kind. Some had been referred because of speech and language problems and their communication difficulties were obvious and quite clearly defined; others had been identified as having behaviour problems or mental or physical handicap and were observed to have additional difficulties in communicating with peers and adults. This was often manifested in avoidance of adults and other children or in inappropriate responding to initiations by others.

Because of the complexity of interpersonal communication in a pre-school unit, the interactional section of the observational schedule provided insufficient and superficial data in this respect but it did highlight the need for a more detailed study to be carried out to examine communication more closely. A short study was, therefore, carried out of children with communication difficulties during the spring and summer terms, 1981.

The language of 12 children was recorded in a range of ordinary and special pre-school units by means of radio microphone systems. Extensive transcripts were obtained from these tapes and dialogue was analysed using a cognitively based coding system devised by Marion Blank and her colleagues. Each child was also assessed by means of the Pre-School Language Assessment Instrument (Blank, Rose & Berlin 1978) based on this coding system, in order to compare linguistic performance in a test situation and in a natural free-play situation.

The recording procedure and method of analysis will be discussed. The findings will be considered in relation to communication in the nursery generally and to the problems of children with special needs specifically.

CHILDREN STUDIED

The language of 10 children in ordinary nursery units in the Birmingham research area was recorded. Five of these children had speech and language difficulties which had been assessed by speech therapists. They all attended ordinary units which had been included in the observational study and were chosen at random from a list of suitable children drawn up by the teacher in charge or day nursery

officer. Three of the children with communication difficulties attended nursery schools, one attended a nursery class and one a day nursery. They ranged in age from 4 years 1 month to 4 years 4 months and were all expected to begin attending infant school within six months. All five children, whose names have been changed for reasons of confidentiality, experienced considerable difficulty in communicating, for various reasons. Andrew and Beryl attended weekly speech therapy sessions at a local clinic but were making little progress and indeed rarely spoke during these sessions. Donald was still under the care of hospital consultants following an operation to repair a cleft palate and had recently developed hearing problems requiring the insertion of grommets into his ears. Shabana was said by staff to understand very little English and was believed to have limited ability in her native tongue. Remaining silent for much of the time in nursery, she would sometimes surprise adults by producing relatively complex utterances in perfect English. Speech therapists had been unable to assess her language because of lack of co-operation and elective mutism was suspected. Jeremy's expressive language problems were attributed partly to a slight speech defect and partly to his over-reactive, excitable personality. He was on a waiting list to attend speech therapy.

Each child with a communication problem was matched with a control child in the same unit who was perceived by staff to have no such difficulties. The control children were of the same sex and ethnic background as the target children and were matched as closely as possible for age and length of time in nursery. The nursery staff provided the names of all possible control children and one was selected at random by the observer. The control children ranged in age from 3 years 10 months to 4 years 8 months. Parental permission was obtained for all ten children involved in the study.

Finally, the language of two children attending the special language unit 'A', described on page 67 was recorded. Helen was 4½ years old and her speech was very difficult to understand. Her problem had been diagnosed as a phonological disorder. Sean's problems were more severe and mental retardation was suspected. He had receptive and expressive dysphasia and may also have suffered from mild cerebral palsy.

Further details relating to the twelve children studied are shown in table 15.

TABLE 15

DETAILS RELATING TO CHILDREN IN STUDY OF COMMUNICATION

CHILD	UNIT	D. OF B.	DIAGNOSIS OF PROBLEM
Martin	Nursery School	14.10.76	Control paired with Andrew
Andrew	"	7.12.76	Expressive and receptive language difficulties
Jane	Nursery School	21.10.76	Control paired with Beryl
Beryl	"	13.2.77	Expressive and receptive language difficulties
Charles	Day Nursery	4.6.77	Control paired with Donald
Donald	"	4.12.76	Repaired cleft palate (not detected until 3 years old)
Anthea	Nursery School	5.7.76	Control paired with Shabana
Shabana	"	16.12.76	Asian girl who seems to understand little English but may be elective mutism
John	Nursery Class	23.10.76	Control paired with Jeremy
Jeremy	"	20.12.76	West Indian boy - over-reactive behaviour problems, expressive language problems, may be speech defect
Helen	Special Language Unit	21.2.77	Phonological disorder
Sean	"	4.8.76	Receptive and expressive dysphasia Suspected mental retardation and mild cerebral palsy

METHOD

The accurate recording of children's language in the complex and constantly changing environment of the pre-school unit presents immense practical problems. Longhand written narratives made by observers cannot possibly capture what is often a continuous flow of dialogue between children engaged in free play activities. Structured observation schedules reduce the amount of work required of the

observers but, as was discovered in the previous study, the quality of the recordings is simultaneously reduced and much of the content is lost.

Tape recording a child's language allows the fullest and most accurate study of dialogue to be made but there are obvious technical difficulties to be overcome when recording children's natural interactions in the nursery setting. Directional microphones suspended from the ceiling can be used but they pick up a great deal of background noise and so produce very unclear recordings. Such systems are also cumbersome and cannot be transported easily from one nursery to another. Radio microphones attached to target children seemed the ideal solution but until recently they too were cumbersome and liable to upset or distract the children. A new radio microphone system has been developed which has a lighter transmitter and tiny unobtrusive microphone. The speech of the wearer is recorded very clearly as is the speech of others within a range of about ten feet from the wearer. Although the microphone is highly sensitive, it picks up very ltttle unwanted background noise and interference.

APPARATUS

Two radio microphone systems were used simultaneously in a nursery unit, one worn by the child with communication problems and the other by the control child. The use of different wavelengths made such simultaneous recording possible. The radio microphones, supplied by Audio Limited of London, were model RSM 8, fitted with Electret microphones. Recordings were made on ordinary C90 cassette tapes using Grundig mono cassette recorders. The transmitters operated on rechargeable PP3 batteries while the receiver used disposable HP7 batteries. While the receiver batteries lasted for approximately twenty hours of recording time, the transmitter batteries became too weak to function after only three hours of operation and so required frequent replacement and recharging.

It is necessary for the child to wear the transmitter as well as the microphone and the means whereby the child carried the transmitter presented a practical problem. The transmitter, containing the battery, is approximately the size of a cigarette packet and weighs 8½ ounces. It must be securely fixed and concealed within the child's clothing so that it cannot be interfered with and it must not restrict movement. Furthermore, the garment must be equally acceptable to boys and girls since both were included in the study.

A butcher-style apron was chosen as most suitable. The aprons were green, blue or brown with white stripes and were worn enthusiastically by the children. Two aprons were adapted for wear by the target children, having been modified to hold the transmitter and microphone. In order that these children would not feel anxious about being picked out for special treatment and attention, nine ordinary aprons were available to be worn by peers in the nursery.

The receivers and recorders were set up in the staffroom or office, away from the play area of the nursery. The signal could be received from a transmitter up to half a mile away and so the children were free to move around the nursery and the outside play area during recording sessions. This is extremely important and one of the major benefits of using radio microphones since the children's dialogue can be recorded even when they are in places potentially out of earshot of adults, such as in the Wendy House or a far corner of the playground.

PROCEDURE

The target and control children were recorded simultaneously during two sessions, often on consecutive days and always during one week. Recordings were made during free play when the children are allowed to choose any of a large number of activities, both indoors and outdoors. Lunchtime was also included in each recording session since there tends to be a great deal of discussion around the dinner table, with and without adult involvement. Recordings were not made during group activities directed by adults since the participation of individual children may be limited and 'formal.' Each session involved 90 minutes of recording time, generally between 10.00 a.m. and 2.00p.m. depending on nursery routine and the amount of group time to be avoided.

The tape recordings alone would not be sufficient to allow the transcriber to write a complete and accurate account of what was said and done by a child. The context of each piece of dialogue is crucial in presenting a complete report of communication which will involve the child's activities, number of participants in interactions and non-verbal interactions as well as spoken dialogue. Two research workers observed in the nursery unit during recording, one watching the child with special needs and the other watching the control child. The

observers noted what the child was doing, how many peers were present and whether adults were involved. They also noted relevant gestures which were made and which would not be apparent when transcribing the tape. For example, the child might nod his head in response to questions or push away another child who asks for a toy. Finally, the observers wrote down any statements which might be directed to the child from beyond the range of the microphone. A peer may call on a child from outside the playroom or the teacher may make a request from the other side of the room. Often the increased volume of such comments and requests meant that they could be clearly discerned on the tape but it may not be so apparent that they were directed towards the target child.

At the beginning of each session the observers set up the receiving equipment and tested it. Aprons with microphones and transmitters were then fitted onto the target children and ordinary aprons onto any other children who wished to wear them. In some nurseries, children had to wear aprons on a rota basis since demand exceeded supply! As soon as the recorders were switched on, the observers began to make notes. The systems were switched off during group activities directed by staff and recording resumed when the children returned to free play or had lunch. The session ended when 90 minutes of recording time had elapsed.

TRANSCRIPTION

Tapes were transcribed by the observer as soon as possible after the recordings were made. Using notes taken during the session, everything the child said and everything said to the child by adults and peers was written down. Distinction was not made between adults and children; they were described as A and P respectively with the target child being C. The context of the dialogue was also included in the transcript as were relevant non-verbal communications which had been noted by the observer.

Occasionally, the transcriber might be unable to decipher a word or phrase, especially if the child's speech was indistinct. The child's teacher or nursery nurse, familiar with his pattern of speech, was sometimes able to understand what the child was saying. Failing this, a cross was marked for every word which was unintelligible.

TESTING

Each child was tested at the end of the second recording session using Blank, Rose and Berlin's Pre-School Language Assessment Instrument (1978), which gives a profile of a child's discourse skills and

qualitative information on the nature of the child's responses to questions of different levels of complexity. Pictures are used as illustrative materials in the test which contains sixty questions. Four levels of complexity are represented each by 15 questions, the different levels of demand of discourse skills being interspersed in such a way as to retain the child's attention and to represent as nearly as possible the varying demands during discourse between a child and adult. The strengths and weaknesses of discourse skills identified in the test are not necessarily evident to adults attempting to communicate with a child nor are they revealed by the conventional language tests for young children. They do, however, represent many of the demands made on the young child entering school.

Examples of the types of questions at the four levels are given below followed by a brief discussion of the results of two four year old boys assessed by Marion Blank when demonstrating the administration of the test.

Level I : Matching Perception

In order to respond to questions at level I, the child uses language which is closely related to perceptual information, generally actions and objects which can be observed. Level I demands include -

a. Simple labelling (What is that called?)

b. Imitation of simple sentences (Say : the boy saw the car)

c. Carrying out simple instructions (Touch your nose)

d. Matching by scanning an array of objects

e. Immediate recall (What did you just see?)

Level II : Selective Analysis of Perception

At this level, the child still attends to objects and actions which are present before him but focus is now on different aspects and characteristics of the material such as shape, colour, size and weight. The following skills are included at level II -

a. Function of objects (What do we do with scissors?)

b. Sentence completion (Finish this - I like to eat some ....)

c. Identifying differences and similarities (Shown a tricycle and a bicycle and asked - how are these different?)

d. Scanning for an object defined by its function (Find me something I can cut with)

e. Describing a scene (What is happening ...?)

f. Recalling details from a story presented orally

Level III : Reordering Perception

The child is required to re-order his perceptual experiences since what he sees will not help him to respond to questions at level III. The following are examples of level III demands -

a. Following directions in sequence (touch hair, stand up, clap hands)

b. Assuming a person's role (what did she say to the dog?)

c. Request for exclusion (from an array select all the objects that are not clothes)

d. Similarities between objects (what is the same about scissors and a knife?)

e. Definitions of words (what is a car?)

f. Continuing a story (what did the boy do next?)

g. Telling a story from a sequence of pictures.

Level IV : Reasoning about Perception

Verbal formulations at level IV are the most complex and abstract. Tasks involve going beyond the salient features of objects to reasoning and problem solving and test demands at this level include -

a. Predicting the course of events (what will happen if....?)

b. Justifying prediction (why will.....happen?)

c. Making and justifying inferences (how can we tell that...?)

d. Identifying causes of events (why did ..... happen?)

Evaluation of Responses

The degree of acceptability and adequacy of each response is assessed and a score given accordingly. Acceptable responses fall into three categories -

Fully Acceptable	The answer fully meets the demands of the task
Acceptable	The answer is valid and would be acceptable in dialogue but is poorly formulated, is not specific or includes irrelevant information
Ambiguous	It is not possible to determine whether the response is adequate or inadequate

An inadequate answer receives no score but again the reason for the inadequacy is determined according to four categories -

Invalid	The answer shows an understanding of the question but is incorrect
Irrelevant	The answer shows no understanding of the question
Don't Know	The child states that he/she cannot respond
No Response	The child remains silent, offering no response

Frequently, children with communication problems appear to hold adequate conversations with adults and peers but if closely analysed, they often disguise their lack of understanding by giving irrelevant responses. If the other speaker then follows in the new direction suggested by the child's response, the irrelevancy is not noted and the conversation continues. Thus the qualitative assessment of the responses may provide additional insights.

A Sample Assessment

Two four year old boys in the same nursery class and due to enter school, were assessed on the Pre-School Language Assessment Instrument and were found to have very different levels of competence in language of relevance to their likely ability to cope with the demands of the school. One of the boys recognised by the staff as very bright and advanced in linguistic ability, showed this clearly in his success in responding to questions at each of the levels. Only in tasks requiring reasoning and justification (level IV) did he show lack of confidence including requests for feedback on his accuracy. His answers were generally fully adequate and even his inadequate answers showed some evidence of understanding the question. The other boy, in contrast, showed difficulty in communication. The test revealed, however, that provided the questions were at level I he responded adequately, although he appeared restless and lacking attention. When questions required that he attend to attributes and functions of objects (level II) he would respond but by labelling or repeating the question. A qualitative assessment of his responses revealed both his limitations in responding to more complex questioning and his tendency to respond with accurate information on a simpler level with which he can cope. The insights provided by the test on the wide differences both qualitatively and quantitatively of these two boys in their ability to respond to a range of questions made the research team decide to administer the test to the children in this aspect of the study.

Administration of the Test

All twelve children were assessed using the Pre-School Language Assessment Instrument at the end of the second recording session. Testing was carried out in a quiet room where there was no distraction from other children and adults. The test, which takes approximately 20 minutes to administer, was completed in one session by all children except Jeremy, who became too restless and so completed the test

during two ten minute sessions. The test was scored immediately by the tester.

ANALYSIS OF TRANSCRIPTS

System of Analysis

A formal language test can discover much about a child's strengths and weaknesses and the Pre-School Language Assessment Instrument parallels natural dialogue more closely than most other tests of linguistic skills. But the test situation, with the demands it imposes on the child, is still a contrived situation. The child is not an equal participant in the dialogue since the tester is always the initiator and is clearly superior. If the child is anxious or inhibited then he is unlikely to demonstrate his ability and true potential.

Marion Blank was aware of the limitations of testing and so developed a system for analysing a child's natural dialogue, as might be produced during free play in the nursery setting. The system of dialogue analysis is based on the same theoretical concepts as the Pre-School Language Assessment Instrument. As the test contained items at four levels of linguistic complexity so initiations in dialogue are coded using the same four levels. Responses in dialogue are assessed according to their appropriateness,,although the categories used are slightly different from those in the test. Responses are coded as -

Adequate	This response is adequate and meets the requirements of the initiation
Inadequate	A response is given but does not meet the requirements of the initiation, being invalid, irrelevant or insufficient
No Response	The responder says or does nothing which might be appropriate in reply to the initiator's statement
Request for Clarification	The responder asks the initiator to repeat or clarify what he/she has just said
Ambiguous	A response is made which is ambiguous and unclear and may or may not be adequate

As well as assessing dialogue in terms of complexity of initiations and adequacy of responses, the coding system incorporates several other factors, three of which are especially relevant in the present study.

Firstly, some questions restrict the response to one of two alternatives. For example, the child or adult may only have to reply 'yes' or 'no', 'this' or 'that'. Such responses are coded as

inadequate if they are definitely incorrect and as ambiguous if they are not incorrect. They cannot be regarded as adequate since the child has a 50 per cent likelihood of being correct by chance alone. An example of such an interchange might be :

Initiator : Did you wear your new shoes yesterday?

Responder : No

If the responder goes on to elaborate his response then it may be considered adequate. For example, in response to the above initiation, the responder could say "No, because it was raining and my mum said I should wear boots instead." This response is clearly adequate. Dialogue which contains many such 'two-choice initiations' will appear to flow adequately since even the child with severe language difficulties can often respond yet have no real understanding of the topic and the demands of the question.

Secondly, many questions and commands require to be coded at more than one level of complexity. The initiator might say "get some milk because we need milk to make coffee," This initiation is coded as levels I and IV since the responder need only understand the initial request (underlined) and can ignore the more complex explanation which follows, when making an adequate response. Nursery staff should be aware that children can respond to selected parts of many initiations and they should not assume that the children understand or even attend to the more complex structures and reasoning. This is another strategy available to children with communication problems who can then appear quite skilled and adept in conversation.

Thirdly, distinction is made between initiations which are questions or commands requiring a response (Blank calls these 'obliges') and comments which are statements containing no explicit demand for a response. Comments do allow the second speaker to contribute and maintain a conversation should he wish.

Coding Procedure

Every initiation and response in a transcript was numbered. Each initiation was then assessed according to its level or levels of complexity and the code marked alongside. Responses were also coded, according to their adequacy. In some cases responses served as new initiations and so they received two codes. Two-choice initiations were marked with an asterix. The data was then transferred to summary sheets, an example of which is contained in the appendix. The number of the initiation was recorded in the table so that it would be possible

to refer back to the transcripts later to find particular excerpts of dialogue. Also appended is an excerpt from a transcript showing numbering of initiations and responses and coding.

Test performance and dialogue in the nursery will be discussed for each pair of children. The child labelled LD is the child with language difficulties and C is the control child.

PAIR ONE - ANDREW (L.D.) & MARTIN (C)

Andrew had severe expressive and receptive language difficulties and his speech was very difficult to understand. He attended speech therapy weekly but was making little progress since he rarely spoke during sessions.

Test Performance

Andrew was able to cope adequately with most questions involving simple labelling, matching and repetition (level I). He could not cope with any tasks which were more complex. Asked to identify the shape of car wheels or to remember details from a story, he repeated the questions. Asked to select particular items from an array, he would label all the objects. He did not respond to questions involving reasoning, remaining silent or making a grunting sound (eh). He did, however, concentrate throughout the test and still coped successfully with simple tasks, even towards the end.

Martin, on the other hand, performed very well on all tasks, only having some difficulty with reasoning problems and justification of his answers. He answered quickly and confidently, giving enough information to meet the demands of the task without giving irrelevant and unnecessary details. 93 per cent of his adequate responses were fully appropriate.

Dialogue in the Nursery

Andrew's linguistic abilities appeared to be more highly advanced in the nursery unit than would be predicted from test results. Most of his interactions were with adults since peers found him difficult to understand and avoided him, excluding him from their play.

He coped with all simple requests from adults and on 45 occasions he responded to more complex questions (level II). For example, he correctly identifed colours and numbers. But it seemed that Andrew was strongly dependent on situational cues and context in order to respond to questions which were too complex for him to handle. Such cues were missing in the test. It is also likely that many conversations

were routine and repeated frequently in the nursery and so Andrew could learn the expected and acceptable responses. Many of the initiations from staff to Andrew were of the two-choice type where the answer given is ambiguous and could be correct by chance, without any real understanding. In the following example, Andrew may not have understood the meaning of 'few' or 'enough' but he appears to be participating in a meaningful dialogue. This was a mealtime conversation.

Adult : What do you want Andrew? Do you want one sausage or two?

Andrew: One

Adult : A lot of chips or a few chips?

Andrew: A few chips.

Adult : Will that be enough or do you want more?

Andrew: Enough

Later, during the same meal, Andrew's lack of real understanding was revealed, as on many occasions. The teacher asked children around the table if they wanted one cracker or two. She said to Andrew -

Adult : Andrew, would you like a cracker with cheese or without cheese?

Andrew: One

He has imitated the replies of his peers, in the hope that this will be appropriate.

He employed several strategies to cope with initiations from others which he did not understand. On many occasions he grunted (eh) when he was confused, as he did in the test. The adult then frequently interpreted this grunt as 'yes' or 'no' and Andrew happily accepted this interpretation. If a question was too complex, he would say nothing and wait until the adult simplified the question, as in the following excerpt. Andrew has been painting pictures.

Adult : Would you like to have a go at another one or would you like to draw a picture for me up there? (POINTS TO A BLACKBOARD)

Andrew: LOOKS, DOES NOT REPLY

Adult : Would you like to draw a picture?

Andrew: Yeh

His final reply is ambiguous, not necessarily based on any real understanding of the question.

Andrew was frequently frustrated in his attempts to communicate, when he could not make himself understood. His speech was very unclear and sometimes the microphone picked up words which the adults and peers

in the nursery had not understood. The transcript then revealed a disjointed and unsatisfactory dialogue as Andrew became more and more confused and sometimes the conversation had to be abandoned. The following is an example of such an interchange. Andrew had painted a picture of his father, complete with beard.

Andrew : Look!
Adult : Are you finished, Andrew? (COMES TO LOOK)
Andrew : Yes, look.
Adult : Let's have a look.
Andrew : That's my pic...
Adult : INTERRUPTS That's nice. What's that?
Andrew : That's a .... UNCLEAR
Adult : Mm?
Andrew : That's eye.
Adult : Who's that?
Andrew : He's got beard on
Adult : DOES NOT UNDERSTAND What are you going to put on him now?
Andrew : He's got a beard on. There. POINTS
Adult : DOES NOT UNDERSTAND What's that? POINTS TO BEARD
Andrew : That's ....
Adult : INTERRUPTS Oh, I know who that is, don't I?
Andrew : Yes
Adult : Well done, that's daddy's beard!
Andrew : Yes

Andrew rarely initiated interaction with others and when he did, he made a short utterance to gain attention, as in the above dialogue when he called "Look!" Most of his conversations were initiated by adults.

Martin had scored much more strongly in the test but recording of his interactions in the nursery showed that adults initiated dialogue with him at the same level of complexity as with Andrew. And so questions and instructions from staff to Martin were generally simple, closely related to nursery routine and activities (levels I and II) whereas Martin had demonstrated his ability in the test to cope with complex linguistic structures involving reasoning and predictions (levels III and IV). Indeed, dialogue in the nursery between Martin and his peers was more complex linguistically than his dialogue with adults. On 28 occasions Martin initiated dialogue with peers which involved abstract, imaginative language (level III) and he responded to 10 such initiations from peers. Most of Martin's interactions were

with peers and those with staff tended to be adult initiated. The following excerpt is taken from an episode of play with large bricks and the complexity of language can be compared with Andrew's dialogue.

Martin : Shall we build a high tower but don't let it fall down?

Peer : NODS

Martin : Right. Don't let it go down. With these. POINTS TO BRICKS. PEER PICKS UP WRONG BRICKS

Peer : Not with these - those there. POINTS TO HIS OWN BRICKS

Martin : They're not little enough. Make these, these ones. POINTS

Peer : MAKES TOWER WOBBLE Martin!

Martin : Don't, you'll make the tower fall down! Someone else done that. POINTS TO PILE OF BRICKS

Peer : What? What?

Martin : Someone else done that, Didn't they?

Peer : Yes

Martin : Wow. Shall I hold it? Right, it's going! WOBBLES

Peer : Is it going to fall?

Martin : No, let's put some more on. I'll hold it. Put some more. Can't you reach? PEER TRIES TO REACH AND KNOCKS TOWER OVER Ooh! Shall we try that again? Let's make one again. Make one. I'm making one, are you coming to help me?

Peer : Yes

Martin : Let's build a tower. This is high enough. Let's go on another one.

PAIR TWO - BERYL (L.D.) & JANE (C)

Beryl and Jane attended the same nursery school as Martin and Andrew. Beryl had expressive and receptive language difficulties although she was less severely handicapped than Andrew. Most of Beryl's utterances could be understood by the listener. She had been echolalic on admission to nursery one year earlier and there were still some signs of this but it was no longer considered a problem by staff and speech therapists. She attended speech therapy weekly with her mother and was making some progress. Beryl was a tall girl who looked like a six year old and so adults tended to under-estimate her linguistic skills, forgetting or not realising that she was only four years old.

Test Performance

Beryl, like Andrew, attempted to answer all the questions in the test. She coped adequately with all simple tasks (levelI) but had great difficulty answering more abstract questions, especially if these

required reasoning and prediction beyond the immediate material and present situation. When a question was too complex for her to understand, she generally gave an irrelevant response. For example, when asked why marbles could not be put into a bowl filled with playdough, she replied "a man hit a boy."

Jane's test performance was surprisingly poor and only a little superior to Beryl. She coped with most tasks involving understanding of the objects/situations depicted before her (levels I and II) but could not handle more abstract questions. Throughout the test she was observed to lack confidence and repeatedly requested confirmation that her responses to even simple questions were correct. She was reluctant to guess and this was reflected in the finding that 18 of her 23 inadequate responses were either "don't know" or no response; she rarely gave an invalid or irrelevant response.

Dialogue in the Nursery

Like Andrew, Beryl engaged in very little communication with peers. She only interacted with one other child during the recording sessions and dialogue was limited because this child was Asian with only basic understanding of English.

She handled adequately simple instructions and questions from adults but many of her responses were ambiguous since initiations were often two-choice questions which could be answered without real understanding. Beryl did appear to enjoy conversation and attention from staff and attempted to maintain dialogue even when, as in the following excerpt, she had little understanding. The teacher in this conversation perseveres and tries to keep Beryl to the point but most of the child's responses are irrelevant. The teacher and children are discussing aprons at lunch time.

Adult : Have you got a pinafore like that one? Or a bib?

Peer : A bib

Adult : A bib. Is it one of Emma's?

Peer : SHAKES HEAD

Adult : No, it's one of yours. I think it's probably a pinafore.

Beryl : I've got a bib.

Adult : Do you? What's it like?

Beryl : Like a bib

Adult : Like a bib. Is it not a pinafore like that? With strings round to tie round your waist.

Beryl : Yes

Adult : It is. I would think it's more likely a pinafore than a bib. Has it got a picture on it?

Beryl : Yeh

Adult : What's the picture on it?

Beryl : Red

Adult : It's red is it?

Beryl : Yes

Adult : What's the picture of?

Beryl : UNCLEAR REPLY

Adult : Pardon?

Beryl : Pink

Adult : Pink and red

Beryl : Yes

Adult : Has it got a picture on it or is it just two different colours?

Beryl : Pink

Adult : Pink and red

Beryl : Yes

Beryl was most often the responder in dialogue. When she did initiate an interaction, this most frequently took the form of a simple mechanism to gain attention, such as saying "Look!"

Jane performed in the nursery at a much higher level than suggested by her test profile. She was involved in long episodes of of imaginative play with peers during which she initiated many conversations using linguistic structures which were abstract and complex (level III). When an adult became involved in fantasy play, Jane was able to respond appropriately to many such initiations. Apart from during this episode of play, adult-initiated dialogue was generally simple and routine. Jane was noted on several occasions not to respond to simple two-choice questions which she would clearly understand.

The following short excerpts, in which Jane pretends to be mother and an adult is her child, can be compared with Beryl's dialogue.

Adult : PRETENDS TO COME HOME FROM SCHOOL They've all brought their pictures to show you.

Jane : Well, I'm going to hang them up in your bedroom. Come on.

Adult : Can we go out to play for a little while?

Jane : Yes you can but not for long - you'll get wet.

Adult : Oh, all right - come on then, let's go outside.

Jane : No, you've got to sit down - you've got to put your boots on and your mac.

Adult : Oh dear. What about the others?

Jane : And you Andrew.

Jane : Waking up time again!

Adult : Oh dear.

Jane : No playing outside today.

Adult : What are we going to do then?

Jane : You just stay in the house and .... and ..... jump about.

Adult : Oh, we can jump about.

Jane : Not round the house.

Adult : Oh.

Jane : I'm going to hang the washing outside. Don't make a noise while I do it.

Adult : All right.

Jane : Now do you want to come ..... there's your daddy! Daddy's come 'ome!

Adult : Oh, daddy's here. Hello daddy.

Peer : Hello

Jane : Come on. It's night time now.

Adult : Who's our daddy?

Jane : Paul. Come on then

Adult : Oh, do we all sit down for a meal now?

Jane : No, you go to sleep, go to sleep. Me and Paul's going to stay awake and we just listen to you talking. If you make a noise, waken your dad up, I'll be very cross and I'll come and give you lots of smacks.

PAIR THREE - DONALD (L.D.) & CHARLES (C)

Donald and Charles attended a day nursery. Donald had a speech defect resulting from a cleft palate which was not detected and repaired until he was three years old. Nursery staff and his mother also felt that unpleasant hospital experiences (he had additional hearing problems) and frustrations caused by his communication difficulties had led to Donald becoming very withdrawn and reluctant to interact. Donald was, furthermore, half West Indian and living with his white unmarried mother who was aware that Donald's speech problems and mixed parentage made him the victim of neighbourhood bullying which she frequently observed and which distressed her.

Test Performance

Donald was co-operative during testing but performed poorly. He had difficulty responding to simple, concrete questions (level I) and could not cope with more complex tasks. He could adequately respond to simple questions requiring non-verbal responses and could carry out simple matching tasks but could not, or would not, attempt complex

questions requiring more than single word answers.

Charles, although approximately five months younger, functioned at a higher level on the test. He could respond to most simple questions and was able to attend to attributes of objects, identify differences and similarities and so on (levels I and II). He could not, however, cope with more complex tasks.

Dialogue in the Nursery

Donald was involved in very little adult or peer dialogue in the nursery. During recording sessions, he initiated no interactions with adults. Staff initiations to Donald were all simple commands (level I) to which his responses were ambiguous.

He was involved in several extended bouts of play, coincidentally with Charles, during which he did initiate some conversation. He was able to respond adequately to several requests and questions (level II) and dialogue between the two boys was generally more complex than with staff.

Almost no dialogue was recorded during lunch times. Donald and Charles were seated at different tables, each with four or five peers and at least one adult. Adult conversation was related to the meal and did not encourage the children to talk. The following excerpt contains all the communication directed at Donald by adults during a lunch which lasted for approximately half an hour.

Adult : Come on, Norma, eat it up - and your vegetables Donald. All those. Did you enjoy that? NO TIME FOR REPLY He's eaten all his thing ... his cold um ... cold potato up, so if he doesn't eat his pudding, I won't question why. He's eaten so much

---

Adult : Eat that up Donald. Eat it up. Don't you want any pudding? NO PAUSE There'll be no pudding for you if you don't have that.

Adult : Come on Donald. Just that little bit. Oh, you've dropped it all off haven't you? Just that.

Adult : Put your knife on there.

Adult : Don't you want your pudding? NO REPLY

PAIR FOUR - SHABANA (L.D.) & ANTHEA (C)

These two Asian girls attended nursery school. Both children of one parent families, Shabana had severe communication problems while Anthea spoke fluent English and was well integrated. Shabana's difficulties were, however, complex and no satisfactory diagnosis had been made. She took part in all nursery activities and played alongside other children but she very rarely spoke, either in mother tongue or in English. Yet occasionally she produced complex statements in fluent English which astounded staff and which suggested elective mutism.

Test Perfomance

Shabana, as expected, did not respond to questions requiring complex verbal answers but she remained alert throughout the test and responded non-verbally to simple questions where possible, occasionally giving one word answers. Her profile of discourse skills showed weak performance at all levels of complexity.

Anthea's discourse skills, as revealed by the test, were excellent. She could cope with almost every task in the test, rarely hesitating except when responding to questions requiring reasoning and justification which she generally answered correctly after a little thought.

Dialogue in the Nursery

Recording of Shabana's dialogue in the nursery reflected her elective mutism. She initiated and received no communication with peers during the three hours of recording nor did she initiate any interaction with adults. She did, however, receive 260 initiations from staff! Of these, 95 were simple, routine questions to which she offered no response and 83 were more demanding questions (level II) which she also ignored. She did, however, respond adequately to some such questions and even gave adequate responses on four occasions to abstract questions requiring reasoning and relatively complex linguistic skills. While helping a nursery nurse to set tables for lunch, she read all the names of the children from their place cards. She was obviously receiving a great deal of attention from adults and hence positive reinforcement for remaining silent and she probably manipulated the staff by occasionally replying and, again in behavioural terms, giving them 'intermittent reinforcement' which maintained that attention. The following excerpts are representative of the transcripts in which Shabana says nothing but listens to what is being said, smiling.

Adult : What have you got on? POINTS TO APRON What's that? Aren't you going to tell me? What is it? What is it? What's it called? What's it called Shabana? Aren't you talking to me this morning? No?

Adult : Don't you look a pretty girl. Oh, Shabana, very nice isn't it? What colour's this? It's brown. Isn't it? Brown. You do look nice don't you?

Adult : What are you painting? What are you painting Shabana? What are you painting? You tell me. Is it your mummy? Can you paint your mummy? You can change the colour. You can have another colour if you like.

Anthea's interactions with staff were at a more 'normal' frequency. She initiated dialogue with adults on 56 occasions and responded to 44 initiations from adults. Most of her dialogue was with peers in which Anthea tended to be the initiator although she did receive 52 initiations from peers. She frequently coped adequately with complex, abstract linguistic formulations in dialogue with adults and peers. The following excerpts are examples of Anthea's conversations with peers.

Anthea : I'm really sick you know. I had a stomach ache this morning and you didn't. I had a stomach ache and I was sick - I had a headache.
PEERS LISTEN SAYING NOTHING
Wait, come on, let's sit down.
SITS ON CLIMBING FRAME

Peer : I had a stomach ache last night I did.

Anthea : I'm going to tell you something. I'm going to tell you something. I had a stomach ache last morning.

Peer : No!

Anthea : And a headache and a leg ache and an arm ache and I was so sick that I went to the doctor's and I'm still not well - so I have sweeties. Do you want some chocolate?

Peers : I want some chocolate. I want some chocolate.

Anthea : Here you are. Here y'are.

Peer : You've got a green one Anthea. TALKING ABOUT APRON

Anthea : This is the special one. I asked for the special one didn't I. You asked for the brown one.

Peer : No, I didn't. I did not.

Anthea : Oh yes you did.

Peer : Oh no I did not!

Anthea : Oh, don't shout or she'll smack you, Miss Smith. You didn't ask for the brown one, you asked for the green one but you didn't have it did you, you had the brown one.

Peer : I don't care!

Anthea : My best colour's brown. I should've had the brown one.

Several times during the recording sessions Anthea and her friends helped each other with pronounciation. In the following example, Anthea takes on the role of speech therapist when a younger child has difficulty with the 'ther' sound.

Peer : Look! Rupert the Bear!

Anthea : No. Pink Panther.

Peer : Pink Pamfer

Anthea : You can't say it. Pink Panther, 'ther' not 'fer' - you can't say it. Say ther, ther, ther.

Peer : Pamfer

Anthea : No, not with your teeth. Ther, ther.

Peer : Panther. Said it - yes!

On another occasion, a child notices that Anthea has not pronounced a friend's name adequately -

Anthea : You know Assif? He goes to big school.

Peer : Who is Assif?

Anthea : He used to come here, you know Assif.

Peer : You can't say Ass..if STRESSES FIRST LETTERS

Anthea : Ass..f!

PAIR FIVE - JEREMY (L.D.) & JOHN (C)

Jeremy and John attended a nursery class in which many children had speech and language problems since approximately two thirds were West Indian or Asian. Jeremy and John were West Indians. Jeremy had an expressive language problem, possibly in association with a speech defect. He was also over-reactive and impulsive with a short concentration span.

Test Performance

Jeremy could not concentrate for the full 20 minutes required to carry out the test and so testing was completed during two sessions. He coped adequately with most concrete tasks involving labelling and attention to attributes of objects (levels I and II) but most of his responses to more complex questions were inadequate. He did, however, attempt to answer all the test questions and none of his responses were totally irrelevant. For example, asked why marbles could not be put into a bowl full of playdough, he said "cos it's sticky."

John responded quickly and precisely throughout the test and, like Anthea, coped with questions at all four levels of complexity. None of his adequate answers were ambiguous, all being acceptable or

fully acceptable. For example, one task involves asking the child to describe a series of four glasses which, from left to right, are filled gradually with water from a tap, the fourth glass being full. Jeremy said "them drips go in the water and this finished." John's answer was much more complex and precise. He said, pointing to each glass in turn, "Turned the tap on and water filled up there, more drips there (second glass), nearly filled up (third glass) and it was filled up" (fourth glass).

Dialogue in the Nursery

In interactions with adults in the nursery Jeremy was both initiator and responder. Adult initiations were generally simple, routine questions which Jeremy responded to adequately. Jeremy's initiations to staff were also simple but on ten of the 12 occasions in which he asked more complex questions of adults (level II) he received no reply. Peer interaction was infrequent and at a low level of complexity. Peers initiated 11 interactions with Jeremy and Jeremy initiated 24 interactions, mostly simple calls for attention and routine questions (level I).

John received much more staff attention than did Jeremy. Staff initiated 60 interactions with Jeremy whereas they initiated 201 interactions with John. John, however, asked only 7 questions of adults and made 33 comments to which adults responded. Staff initiations were, again, very simple and many questions were of the two-choice type which John often chose to ignore. John's comments to staff were more complex (level III).

There was very little dialogue between John and his peers although he played alongside them and joined in all their activities. This may be due to John's superior linguistic skills. Nine of the ten initiations by peers to John were simple utterances of a low level of complexity whereas five of the six initiations by John were abstract and required greater skills of comprehension (level III). The following dialogue between John and an adult, while setting tables, flows naturally with John giving accurate comments and replies throughout.

Adult : Is Mrs. Jones finished yet?

John : No, she's still in there (POINTS TO SIDE ROOM) She must have come from the library.

Adult : What's she doing there?

John : The children are writing there and tracing and drawing.

Adult : Doing school work?

John : Yes, to go to school. I'm going to soon go to the infants' school.

Adult : Are you four now?

John : Yes. Yeh, I'm going to go when I'm five. Mark went to the infant school when he was five. Do you know how old Clare is now - four years old.

Adult : Who is?

John : Clare

Adult : It was her birthday yesterday.

John : And Edward's.

PAIR SIX - HELEN (L.D.) & SEAN (L.D.)

Helen and Sean attended a special pre-school language unit. Both had severe language problems but could be understood by listeners familiar with their speech patterns. Helen was assessed as having a phonological disorder. Sean had receptive and expressive dysphasia and mental retardation was suspected, together with mild cerebral palsy.

Test Performance

Helen coped well with both verbal and non-verbal responses, attempting all questions and being willing to repeat answers which the tester had misunderstood. Indeed, she was not satisfied until she was sure that the tester had heard her answers accurately. She performed most of the concrete tasks adequately (levels I and II) but she could not cope with abstract reasoning which required relatively high levels of linguistic competence.

Sean found it difficult to concentrate and, while eager to please, his profile of discourse skills showed weak ability at all four levels of complexity.

Dialogue in the Nursery

The first thing which distinguishes transcripts in this special nursery from transcripts in ordinary units is volume. Children in ordinary units received and formulated an average of 206 initiations during the recording sessions. Helen and Sean respectively received and formulated 535 and 327 initiations.

In common with children with communication problems in ordinary units, most of the dialogue recorded in the special unit was between target children and adults. Because of the good staff/child ratio in

the special unit of 1:4, adults were able to give children a great deal of individual attention. They were 'tuned into' each child's pattern of speech and could take time to make sense of what each child had to say.

Dialogue between Helen and members of staff used linguistic formulations at all levels of complexity except those formulations which required abstract reasoning (level IV). Because staff knew Helen's capabilities so intimately, they were able to communicate with her by means of comments and questions which they knew she would understand and so she achieved almost 100 per cent success in responding to adult initiations, even at level III. She rarely met the frustrations encountered by children with communication problems in ordinary units who frequently failed to understand the language of others and relied heavily on contextual cues and imitation, thereby giving the impression of greater linguistic skills than they in fact possessed.

The following conversation took place in the garden and, although Helen's speech was very unclear, she understood what was being said to her and could formulate adequate responses. Two children are building a pretend fire.

Helen : Shannon thinks that on fire.

Peer : Shannon, come quick. It on fire.

Helen : It isn't! It isn't on fire.

Adult : I think he's playing a game. He's pretending it is. What would you do if it was?

Helen : We would call the police.

Adult : Call the police. Who else would we call?

Helen : A ambulance

Adult : An ambulance. Who else?

Helen : A fire engine.

Adult : That's right. The fire engine. You'd have to call the fire brigade wouldn't you? And they would come rushing here with their big engine and lots of water and then what would they do?

Helen : Spray it all out.

Adult : Spray it all out wouldn't they? Put the water on the fire.

Staff used every opportunity to encourage language development and became involved in fantasy play and role taking games. Two telephones situated several feet apart stimulated language and required the children to speak loudly and clearly, as in the following episode in which an adult 'telephones' Helen who is in the play shop.

Adult : Hello. Hello.

Helen : Hello.

Adult : Who's that speaking?

Helen : I shopkeeper.

Adult : You're not Peter!

Helen : I shopkeeper!

Adult : I'm sorry. Someone's shouting in my ear. You'll have to speak up.

Helen : I said shopkeeper!

Adult : Do you want to speak to Sean, Helen?

Helen : No, I want to speak to Shannon.

Adult : You want to speak to Shannon. Alright. Shannon, it's Helen on the telephone.

Shannon : TAKES TELEPHONE Hello

Helen : What do you want for dinner?

Shannon : I'll come to you.

Helen : Alright then. Alright.

Sean also responded adequately to most initiations from adults, even although his communication problems were more severe. Dialogue was at a simpler level of complexity, most conversations being centred around objects and actions which Sean was looking at or handling. He was not engaged in more complex interchanges involving abstract concepts which staff knew he could not cope with and which would lead to frustration.

This chapter has examined in some detail the test results and nursery dialogue pertaining to each pair of children. In the following chapter, the implications of these findings will be considered as well as their relevance to staff working in pre-school settings.

CHAPTER 11

Study of Communication in the Nursery : Implications and Guidelines for Staff

INTRODUCTION

Nursery staff received feedback after the recording sessions and testing were complete. They were shown excerpts of dialogue which illustrated good, natural communication between staff and children. There was also discussion of dialogue in which communication broke down, perhaps because the child was frustrated by his lack of understanding or because the adult misunderstood what a child was trying to communicate. Also of interest to staff were illustrations of dialogue between children, without the presence of adults. Staff frequently commented that the tape recordings and transcripts were of considerable value in relation to the following three areas of communication in the nursery -

1. Increased awareness of adult's role : By examining their interactions with children closely staff were able to detect reasons for breakdown in communication as well as strategies for improving dialogue. Some of these strategies were useful to staff generally. Other teachers and nursery nurses were helped specifically to avoid strategies of communication which they themselves habitually used and which were demonstrated to hinder dialogue with children. "Did I really say that!" was a comment frequently made by staff on hearing their conversations with children, which emphasises the value of tape recordings in providing conclusive evidence for discussion.
2. Increased awareness of children with communication problems : Improved communication between staff and children generally will obviously benefit all children, including those with communication difficulties. But the transcripts drew attention to the additional frustrations and anxieties of those children in the nursery who could not initiate and maintain a conversation or who appeared to respond appropriately but with little real understanding.
3. Knowledge of child-child interaction : Staff were fascinated and often surprised to learn what children said to each other when adults were not present. As well as discovering the topics of the children's conversations, they were also able to analyse the complexity of language used, which was often greater than they would have predicted.

These were the general areas of communication in the nursery to which staff felt the data collected contributed a great deal by highlighting specific aspects of their interactions with children and by increasing their awareness of the children's needs and capabilities. Some of the specific guidelines which staff found helpful will now be presented. Examples of dialogue from the transcripts will be used to illustrate points where necessary.

ADULT-CHILD INTERACTION

1. Question/Answer Pattern : Much of the dialogue between adults and children in the nursery was found to consist of questions and answers, the adults being the initiators. This is not characteristic of natural conversation between adults nor indeed is it characteristic of dialogue between children. Many children, including some with communication problems, were capable of picking up a comment made by another and responding to it in the pattern of normal, mature conversation.

2. Two-Choice Questions : Frequently, adults were found to ask closed, two-choice questions which allow the child to provide an adequate response by chance. In this way, children with language difficulties can pass undetected because they appear to maintain a satisfactory dialogue although in fact their contributions are ambiguous. In the following excerpt, Andrew, who had severe receptive and expressive language problems, could cope with the questions asked, without understanding the meaning of 'few' or 'enough.' This was a mealtime conversation.

   Adult : What do you want, Andrew? Do you want one sausage or two?

   Andrew : One.

   Adult : A lot of chips or a few chips?

   Andrew : A few chips.

   Adult : Will that be enough or do you want more?

   Andrew : Enough.

3. Repetition : Some members of staff habitually repeated what children said, so in effect ending the dialogue. For example, the following interchange took place in a nursery school.

   Child : I've got new shoes on today.

   Adult : You've got new shoes on, have you?

   Child : Yes.

The child with communication problems cannot cope with this response since he does not know what to say next; he has not been helped in any way to maintain the dialogue. Some teachers were aware that they used this strategy to end conversations with children if they were busy but the teacher who engaged in it most frequently, out of habit, was unaware of its negative effect until reading several transcripts. She was then able to make a conscious effort to avoid repetition where it would serve no useful purpose.

4. Time for Response : It can be difficult for staff in a large nursery to spend time with individual children, especially if a child is slow to respond. Consequently, adults often asked questions of children but gave no time to respond before moving away, going on to the next question or providing the answer. This adds to the frustration of a child with language problems who cannot successfully keep up with such a pace of conversation and who will give up trying.

5. Strategies of Children with Communication Problems : Examination of dialogue increased staff awareness of the strategies which a child with communication problems can adopt in order to cope with interaction and so avoid detection of his weaknesses. Andrew, in the example already given, took advantage of two-choice questions in order to respond adequately and was also found to adopt the following strategies.

   a) Cue Dependence : Andrew was strongly dependent on situational cues and context, sometimes being able to answer questions about objects and actions present before him, without understanding the language used.

   b) Imitation : In routine nursery situations, Andrew often imitated the responses of his peers in the hope that he would be correct but his lack of understanding was frequently revealed, as in the example given in the last chapter, concerning mealtime discussion of crackers and cheese.

   c) Ambiguous Reply : On many occasions, Andrew grunted ('eh') when he knew that he was expected to reply but was confused. Adults then interpreted this grunt as 'yes' or 'no' and Andrew happily accepted this interpretation.

   d) No Response : If a question was too complex he would say nothing and wait until the adult simplified the question.

   e) Child Directed Conversation : Most of the children in the study would attempt to change the direction of the conversation if they could not cope. The child would suddenly make a comment which

was irrelevant to the topic being discussed. If the adult then pursued this new line of conversation, the child had successfully avoided revealing his lack of understanding.

6. Frustrations of Children with Communication Problems : By looking at conversations between adults and children with communication problems, the extent of the latter's frustrations became apparent. Some children had very unclear speech and sometimes the microphone picked up words which the adults had not understood. The transcript then revealed a disjointed and unsatisfactory dialogue as the child became more and more confused and sometimes the conversation had to be abandoned.

CHILD-CHILD INTERACTION

1. Complexity : Much of the interaction between adults and children involved very simple, concrete language (Blank's levels I and II). Children talking to each other often used more complex linguistic formulations involving abstract concepts and reasoning (levels III and IV). Adults were under-estimating their dialogue skills and were often surprised by the maturity of their conversations.
2. Children as Teachers : There were many examples in the transcripts of children helping their younger or less able peers to pronounce words and order sentences. Excerpts given in the previous chapter from Anthea's transcripts are good examples of this. Children can learn a great deal from each other, both directly and indirectly. Unfortunately, those with communication problems were sometimes isolated in the nursery since their peers found them 'slow' or difficult to understand. Staff could do much to stimulate dialogue between children in the nursery and to encourage the integration of children with communication problems. It is also true to say that staff generally spent more time in conversation with children who were linguistically advanced and relatively less time with less able children. The former are more rewarding and spontaneous and adults must make an effort to interact with those withdrawn children who may be less spontaneous but would benefit from attention.
3. Play with Language : There were many taped examples of children playing in small groups, the games which teachers and nursery nurses had recently taught them. Of particular interest were those activities which involved exploration with language. For example, a teacher, during group activity, sang various nursery rhymes, substituting

words which the children had to detect and correct. Throughout the day and even several days later, children were recorded singing nursery rhymes together while they played, substituting words which were similar in meaning to the correct words and which were grammatically correct or inserting nonsense words and sounds which rhymed with the correct words. For example, the following excerpt was recorded in a nursery school, the second child having language difficulties.

Child 1 : Baa baa black sheep, have you any wool?
Baa baa white sheep
Baa baa yellow sheep
Baa baa red sheep
Baa baa pretty sheep

Child 2 : Baa baa brown sheep

Child 1 : Baa baa blue sheep

Child 2 : Baa baa blue sheep

The staff had not been aware of the extent to which their 'lessons' had been grasped by some of the children and rehearsed spontaneously and were encouraged by this.

These were some of the points which staff found interesting and relevant to their interactions with children in the nursery, especially those with communication problems. They were able, by reviewing the tapes and transcripts, to critically appraise their own style of interaction with the children and to gain some insight into the dialogue skills demonstrated by children in their own conversations. The extent to which structure should be imposed within the pre-school setting has been discussed at length and the debate continues. Evidence from the present study suggests that staff do require and indeed request guidelines to help them in their daily interactions with children and that some degree of structure must be applied if they are to feel confident in their handling of children with communication problems.

The study threw some light on two further important issues which will be discussed briefly.

Test Performance and Dialogue in the Nursery

Since the Pre-School Language Assessment Instrument and system for analysing the recorded dialogue were based on the same underlying principles, it was possible to compare each child's performance in the test with his dialogue in the nursery setting.

Children whose dialogue skills were good when assessed by the

test, tended to demonstrate a lower level of competency in their nursery conversations. They rarely used abstract, complex language in discussions with peers and adults. Some children with communication problems who could cope with only the simple, concrete tasks in the test, appeared to use more complex language in the nursery. It is possible that some found the test situation intimidating and so did not show their true potential. It is more likely, however, that the situational cues, context and other prompts available in the nursery, which have been discussed in this chapter, helped these children to 'get by' without real understanding of the language used. Staff appear to pitch the complexity of their language in the middle of the range, so ensuring that the majority of the children understand. The more able children will not be stretched and the few with communication problems will fail to understand much that is said to them. It may be that, with large numbers of children to deal with, staff cannot readily adapt their conversational style and complexity to suit each individual child. The need to consider test results and natural dialogue when assessing a child's skills is important since data from one source only will provide a misleading and incomplete picture of the child's level of functioning.

Special Unit or Ordinary Nursery Unit

The staff in the special nursery unit in which two children were studied, were able to pitch their language at a level which both stretched the children and allowed them to understand much of what was said and to respond appropriately. The children's test results matched closely their recorded dialogue in the nursery. This was possible because of the small class of eight children, the good staff/child ratio of approximately 1:3 and the regular services of speech therapists on the school staff. The data collected in this nursery also differed from that in ordinary nurseries since there was almost no child-child interaction in the former setting. The children lacked the social contacts of the ordinary nursery and had no suitable language models amongst their peers.

It could be argued that the ideal situation for children with communication problems would be integration into ordinary pre-school units with the support of additional resources, particularly speech therapists who specialise in early speech and language development and trained teachers who could provide individual and small group language development sessions.

CHAPTER 12

Summary and Implications of the Studies of Pre-school Education and Children with Special Needs

I. INCIDENCE OF CHILDREN WITH SPECIAL NEEDS

The survey covered 104 ordinary pre-school units (nursery schools and classes, playgroups and day nurseries) and a total of 5,605 children. The research area in Birmingham included about 21 percent of all those in attendance at pre-school units in the City and 2,972 children. In Coventry one nursery school, all nursery classes and day nurseries, and a sample of playgroups were visited attended by 2,633 children.

Nursery schools and classes (Total 51)

1. Many children were perceived by the teacher-in-charge as having special needs as a result of their lack, or limited knowledge, of English - 29.5 per cent in the research area in Birmingham and 11.1 per cent in Coventry. Few such children were found in the Scottish Studies and where they were there tended to be only a single child within a particular unit whereas in the present study, in some units the majority of children had English as a second language and might come to school speaking little or no English. A number of the children identified in this category had additional problems - withdrawn behaviour, for example.
2. Within the Warnock framework of 'special needs', or in terms of handicapping conditions, as in the Scottish Study, 10.4 per cent of children in the Birmingham research area and 15.1 per cent in Coventry were identified (1.6 and 1.4 per cent respectively of these under more than one category). Even after the exclusion of second language only, the figures are still higher than in the Scottish Study.
3. Even after the exclusion of second language problems, by far the commonest handicapping condition identified was speech and language representing 34.9 per cent of those identified in the Birmingham area and 29.6 per cent in Coventry, while a further 15.7 and 11.9 per cent respectively of those identified had this noted as an additional handicap. Behavioural difficulties, the other commonly identified 'special need' was often linked in the form of withdrawn behaviour with language difficulties: Few children were identified as suffering from mental handicap, or physical or sensory handicap. Where identified these latter handicaps were usually minor. The three children with severe hearing

loss noted were in a unit linked to the ordinary school.

4. As in the Scottish Study few children were identified as gifted or talented.

Playgroups (Total 32)

1. In the Birmingham playgroups 18.8 per cent of the children were noted as having communication problems under the heading of English as a second language, but only 2.3 in the sample of playgroups in Coventry.

2. Few children were identified in the playgroups in the Birmingham area as having other special needs (6.0 per cent) in Coventry (4.7 per cent) in most instances only a single need being indicated.

3. The numbers of children identified in the playgroups was small and therefore to give percentages within types of need is misleading. There was only one child identified with any visual handicap, some auditory, and a few in each of the remaining categories. The percentage of children in playgroups perceived as having special needs in the present study was low and these were usually minor handicaps in contrast to the Scottish Study where in Grampian Region over 10 per cent of children were identified, some severely handicapped. This contrast could be explained by the rural nature of parts of Grampian Region where the playgroup might be the only pre-school unit within reasonable travelling distance. It must be stressed, however, that some parents of severely handicapped children did stress that they made a positive choice of a playgroup as a place where they would also be welcome to attend.

4. As in the nursery schools and classes a few children only were identified as gifted or talented.

Day Nurseries (Total 21)

1. Few children in the day nurseries were identified as having second language problems - **there were indeed few Asian children in attendance at day nurseries** **(see p.36)**.

2. The children in the day nurseries will already have been selected on the basis of social deprivation or the family's special need. In addition 13.0 and 16.6 per cent in the Birmingham area and in Coventry respectively were identified as having special needs (other than those identified as second language problems); 2.2 and 4.5 per cent respectively of these were noted within more than one category.

3. Speech and language problems and behaviour problems either separately or together accounted for most of the children identified in the day nurseries, although there were a few children in each of the

remaining categories. This pattern was similar to that found in the Scottish Study with withdrawn behaviour causing concern in some instances, but aggressive behaviour in others.

4. As in the other types of unit a few children were identified as gifted or talented.

Children with second language problems

Where identified these have been noted under the section for each type of unit. Only a proportion of the children for whom English was a second language were identified as having special needs, some of whom had additional special needs. Staff commented that there were many more such children who had specific difficulties particularly in expressive language (see Chapter 5).

Special pre-school units (Total 17)

All nursery classes attached to Special Schools in Birmingham were visited and all but one in Coventry. In attendance were 195 children, 123 of whom were under five years of age. Many of these children had complex handicapping conditions, a few whose problems were less severe were being considered for transfer to ordinary schooling (see Chapter 7 for details).

In summary: Few children in ordinary pre-school units in the West Midlands area studied were identified as having special needs requiring support services because of physical needs and few with visual or hearing difficulties were identified. In view of the large proportion of children with problems because English was a second language or because of speech and language difficulties there may have been children with sensory difficulties whose problems had been overlooked. The more multiple or severely physically handicapped were found to be in special units. A support and advisory service of speech therapists who regularly visit the pre-school units to advise and give support seems a priority as does guidance and support for those dealing with large numbers of children for whom English is a second language.

II INTERVIEWS OF THOSE IN CHARGE OF PRE-SCHOOL UNITS

Staffing

Additional staff would be welcomed, both teachers and nursery nurses, but also stressed was the need for staff with experience in working with children with special needs. Parents were used in few

units, other than playgroups, for working with children. Views were divided on the extent to which parents could assist in the units.

Accommodation

Most nursery schools and day nurseries had rooms set aside for quiet activities - not always available in nursery classes or playgroups. Day nursery staff in particular felt greater space was required to cater adequately for children with special needs.

Training

Only a proportion of the teachers in charge of pre-school units had trained for work with that age group. Many of those in charge of day nurseries did not regard their training as adequate particularly in view of the roles they are now requiring to undertake in for example parent counselling.

Few of the staff had any training for, or experience of children with special needs.

Involvement with outside professionals

Requests for priority admissions from a range of professionals had been received by most types of unit - with the exception of playgroups which received few such requests.

Very few pre-school units were visited regularly by outside professionals but most had access to social workers, psychologists, speech therapists and clinical medical officers for assessment of individual children. Delays concerned staff who would also have valued visits and more general discussion and would have valued greater feedback related to appropriate action.

Record keeping

There was greater evidence of written records than had been found in the Scottish Study. Some of these were confined to the records required by the appropriate authority. Detailed records were kept in the special units.

Admission

Policies varied widely with regard to age and waiting lists.

In summary: Few staff in ordinary pre-school units had training for or experience of children with special needs and while referral of specific children to a variety of professionals was possible there was little evidence of support within the units.

If children with special needs are to be admitted to, and adequately provided for in ordinary pre-school units there is a need for the staff in such units to be both fully trained for work with pre-school children and have in-service training for and experience of work with children with special needs. It is also essential that there is co-ordinated guidance and support within the ordinary units from a variety of professionals.

Links between the staffs of ordinary and special units must be developed both to facilitate transfer as appropriate from one type of unit to another and to help in the development of expertise in ordinary units.

III OBSERVATION OF CHILDREN WITH SPECIAL NEEDS (in Birmingham)

A Study of Interaction and types of activity (17 children each with a control child in the same unit, with 15 pre-school units).

The handicapping conditions varied and included behaviour patterns, mental retardation, physical handicap, visual defect and speech and language difficulties. A time-sampled structured observation schedule was devised to study the child's activities, social integration and interaction with adults and peers. Each child was observed on three occasions. While as a group the children with special needs were observed to engage in similar activities to the control children there were within pair differences related to the target child's handicapping condition. Differences in the amount of adult interaction were found for some over- and under-reactive children; children with special needs were also inclined to spend more time looking, listening and waiting (see Chapter 8 for details).

Communication in a Pre-school setting (5 children with communication difficulties each with a control in the same unit, and two children in a special unit).

Two ninety minute recordings were made of each child's language interactions with the use of radio microphones, note being made of the context. Each child was also assessed by means of a language test to assess the levels of complexity of language with which they could cope. The transcripts were then analysed to assess the levels of demand made to and by each child.

The transcripts provided valuable examples for in-service training of where communication was effective and where and possible reasons for breakdown in communication.

In summary: This aspect of the study provided increased awareness of the adults' role in stimulating dialogue, of children with communication problems and a heightened awareness of the complexity of some child/child dialogue. It has considerable potential for staff training and it is hoped to develop some materials based on the tapes and transcripts (see Chapters 10 and 11 for details of this study).

IV INTERVIEWS OF PARENTS AND INFANT SCHOOL TEACHERS

Most of the children in the observational study were due to move into the infant school. The parents of 13 of the 17 children with special needs who were observed were interviewed to discuss their views on their child's pre-school education, as were a few parents of children in Coventry who had attended the Child Development Unit and proceeded to ordinary pre-school units. The following points arise from these interviews:

(a) All parents should have full information on available pre-school provision in order to be involved in decisions.

(b) Parents should be informed of special provision being made for their children and should be encouraged to pass relevant information to the staff involved.

It was noted that a number of parents while wishing special provision for their children would have preferred this to be associated with neighbourhood ordinary units.

While most of the 17 children observed were expected to proceed to infant school immediately following the observational study, in the event only five children were transferred. In view of the small number of children involved and the fact that they were generally the least handicapped of the group observed, generalisations would be inappropriate. (see Chapter 9 for details of the teacher and parent interviews).

Many of the issues related to pre-school education and children with special needs were raised in Chapter 1. With the information now available from extensive interviews and a wide variety of observational studies in a large number of pre-school units in the West Midlands, the reader who now turns again to Chapter 1 where a number of issues were raised, will, it is hoped, see these with increased clarity with the assistance of the information and interpretations presented in the intervening chapters.

APPENDIX I

Categories of Special Need

1. Visual Handicap

Have you any children who are blind or who require more than normally strong glasses or other forms of assistance to enable them to see detail in typical story book pictures?

- 1a. Totally blind
- 1b. Partially sighted

2. Auditory Handicap

Where sense of hearing limits the child's ability to converse normally and acquire normal speech patterns without the use of an aid.

- 2a. Profoundly deaf - Those who have been unable to establish speech because of severe hearing loss.
- 2b. Partially hearing - Those who are sound conscious and are able to acquire some speech with or without a hearing aid.

3. Speech and Language Problems

- 3a. Speech Defect - Where the child has difficulty in making or using some sounds as part of words and/or stammers.
- 3b. Speech Difference - Where the child's accent or dialect interferes with communication.
- 3c. Language Problems - Where the child's comprehension and/or use of English are markedly poor in terms of vocabulary and/or sentence structure.
- 3d. Second Language - As in 3c but associated with the child using English as a second language (please state first language).

4. Physical/Neurological Impairment

Muscular and skeletal deformities (frequently obvious because of orutches, calipers or missing limbs); the chronically ill and delicate - weak hearts, epilepsy, asthma, cerebral palsy, spina bifida, muscular dystrophy.

- 4a. Cerebral Palsy - including mild conditions enabling the child to cope more or less normally.
- 4b. Spina Bifida
- 4c. Epilepsy - including mild forms (petit mal) and cases where convulsions are controlled by medication.
- 4d. Missing Limbs - please give details.
- 4e. Other

5. Mental Retardation

- 5a. Where the child is mentally handicapped because of some clearly recognised syndrome such as Down's Syndrome (Mongolism).
- 5b. Where the child had been identified as developmentally delayed but there is no medical evidence of mental handicap.
- 5c. Where observation of the child in the unit has led members of staff to suspect delayed development and hence mental retardation.

6. Giftedness

6a. Superior Intellectual Development - For example, where superior, accelerated development is found in speech, manipulative skills, language usage and concept development; a high degree of curiosity; ability to attend to a task for longer periods than normal.

6b. Superior Talent - Where a markedly superior ability in painting, music, dance, constructional skills or other creative fields is consistently displayed.

6c. Fluent Reading - Where a child is known to be already reading fluently and with understanding.

7. Behaviour Problems

7a. Where the child is under-reactive - withdrawn, timid, fearful of new experiences and other children, shy, difficulty in making friends, cries easily.

7b. Where the child is over-reactive - aggressive, noisy, domineering, intimidating, bullying, resistant to adult control.

7c. Where the child reacts strangely - repetitive behaviour; no sign of emotions - never smiles or cries; outbursts of laughter for no reason, makes no relationships with staff or other adults.

8. Other Problems

Please give details of any child perceived by you as having special needs who does not fit into one of the above categories.

APPENDIX II

Structured Interview - Ordinary Units

Name of Unit		C1 C2 C3 C4

Category

C5 Blank C6 C7

	Local Authority	Voluntary	Private
Nursery School	01	02	03
Nursery Class	04	05	06
Day Nursery	07	08	09
Playgroup	10	11	12
Residential Nursery	13	14	15
Day Care Centre	16	17	18
Other	19	20	21

Person Responsible for Unit .....

Teacher in charge of class (if different) .....

Approx. age of person in charge	1.	20s	1
	2.	30s	2
	3.	40s	3
	4.	50s	4
	5.		

C8

Number of children on the register at the moment

Morning	Boys	Girls C9 C10 C11 C12
Afternoon	Boys	Girls C13 C14 C15 C16
Full Time	Boys	Girls C17 C18 C19 C20

C21 Blank

STAFFING

No. of permanent full-time staff -

With teaching qualification	C22
With Nursery Nursing qualification	C23
Unqualified welfare/child assistant	C24
Other (specify)	C25

No. of permanent part-time staff -

With teaching qualification	C26
With nursery nursing qualification	C27
Unqualified welfare/child assistant	C28
Other (specify)	C29

C30 Blank

What additional staff would you like to see in your unit to help cope with children with special needs? (Do not suggest any of these)

	Yes	No	
1. Staff with teaching qualification	1	0	C31
2. Staff with nursery nursing qualification	1	0	C32
3. Welfare/child assistantr	1	0	C33
4. Other (specify)	1	0	C34
			C35 Blank

PARENT INVOLVEMENT

Do you regularly use parent help in your unit? Yes / No C36

If yes, how many are in the unit at the one time? .....

Do you use parents to :

a. Help raise funds	Yes	1	C37
	No	0	
b. Help tidy up	Yes	1	C38
	No	0	
c. Prepare materials for the children	Yes	1	C39
	No	0	
d. Be generally available for activities with the children	Yes	1	C40
	No	0	
e. Undertake specific tasks with the children as part of a programme	Yes	1	C41
	No	0	
f. Other (specify)	Yes	1	C42
	No	0	

If parent help is not used at present - Have you ever used parents in the past to :

a. Help raise funds	Yes	1	C43
	No	0	
b. Help tidy up	Yes	1	C44
	No	0	
c. Prepare materials for the children	Yes	1	C45
	No	0	
d. Be generally available for activities with the children	Yes	1	C46
	No	0	
e. Undertake specific tasks with the children as part of a programme	Yes	1	C47
	No	0	
f. Other (specify)	Yes	1	C48
	No	0	

Would you wish to use parent help if you could? Yes 1 / No 0 C49

Do you have any other intermittent help?	Yes		C50
	No	0	
If yes, are they a. Students during term		1	
b. Other		2	
c. Both 1 and 2		3	
Number of non-staff adults regularly present			C51
Details			
			C52 Blank

ACCOMMODATION

Nature of Accommodation

1. Single room	1	C53
2. Two or more quite separate rooms	2	
3. Two or more areas open to each other	3	
4. Other	4	

Is a quiet area available?

1. Separate room	1	C54
2. Part of room	2	
3. Not at all	3	

Do you feel the noise level in the unit is

1. Very high	1	C55
2. Average	2	
3. Very low	3	

Would the level of noise affect your ability to deal with children with special needs?	Yes	1	C56
	No	0	
Comments			C57 Blank
Are there any changes to your present accommodation which you feel would help you to cope with the children at present attending?	Yes	1	C58
	No	0	

If yes, do comments concern (do not suggest these) -

1. Amount of space	No comment	0	C59
	Yes	1	
2. Layout of space	No comment	0	C60
	Yes	1	
3. Noise level	No comment	0	C61
	Yes	1	
4. Special aspects of the building	No comment	0	C62
	Yes	1	
5. Other (comments)	No comment	0	C63
	Yes	1	

Are there any changes in your present accommodation which you feel would help you to cope with children with special needs?

	Yes 1		C64
	No 0		

If yes, do comments concern (do not suggest these) -

1. Amount of space	No comment	0	C65
	Yes	1	
2. Layout of space	No comment	0	C66
	Yes	1	
3. Noise level	No comment	0	C67
	Yes	1	
4. Special aspects of the building	No comment	0	C68
	Yes	1	
5. Other (comments)	No comment	0	C69
	Yes	1	

CARD 2
C1
C2 C3 C4
C5 Blank

TRAINING

Give details of your training up to the present time C6

1. Teacher training with pre-school component 1
2. Teacher training - infant, junior or senior 2
3. Nursery Nursing Qualification 3
4. Nursery nursing qualification + teacher training 4
5. Other (specify) 5

Do you have any additional experience which you feel is relevant to your ability to cope with children with special needs?

1. University/college subjects	Yes	1	C7
	No	0	
2. In-service course (specify)	Yes	1	C8
	No	0	
3. Nursing	Yes	1	C9
	No	0	
4. Work with handicap	Yes	1	C10
	No	0	
5. Other	Yes	1	C11
	No	0	

Do you feel that your training was adequate preparation for the responsibilities which your post entails?

	Yes	1	C12
	No	0	

If no, what changes do you feel would be most helpful?

Do you feel that your training was adequate preparation for dealing with children with special needs?

	Yes	1	C13
	No	0	

If no, what changes do you feel would be most helpful?

Do any members of your staff have additional training or experience which you feel is relevant to their ability to cope with children with special needs?

Yes	1	C14
No	0	

Comments

What factors about your present conditions limit the numbers of children with special needs with whom you could cope (read the list)

1. Staff	1	C15
2. Accommodation	2	
3. 1 and 2	3	
4. Other	4	
		C16 Blank

INFORMATION

Have you had a child/children specially placed in your unit as a priority admission in the last three years?

Yes	1	C17
No	0	

If yes, who asked you take these children (read list)

	Once	More than once	Never	
1. Parent	1	2	0	C18
2. Health Visitor	1	2	0	C19
3. Clinical Medical Officer	1	2	0	C20
4. G.P.	1	2	0	C21
5. Social Worker	1	2	0	C22
6. Educational Psychologist	1	2	0	C23
7. Other	1	2	0	C24

How often do the following visit your unit? (read list)

	Never	On a regular Basis	On Occasion	
1. Ed. Psychologists	0	1	2	C25
2. Social Workers	0	1	2	C26
3. Health Visitors	0	1	2	C27
4. Speech Therapists	0	1	2	C28
5. Others (specify)	0	1	2	C29
				C30 Blank

RECORDS

You will keep written records of each child's name, address, date of birth, etc. Do you keep any written records in addition to this?

Yes	1	C31
No	0	

If yes, are these :

	All Children	Some Children	None	
1. Diary of notable incidents involving particular children	2	1	0	C32
2. Record of developmental level	2	1	0	C33
3. Individual programmes	2	1	0	C34

Who has access to these additional written records?

1. Person in charge of unit only		1	C35
2. Some staff (specify)		2	
3. Other		3	

Do you pass on these additional written records to the infant school?

1, Routinely for all		1	C36
2. Only when it seems important to do so		2	
3. Only when requested		3	
4. Not at all		4	

Which type of written record is passed on?

1. Diary of notable incidents	Yes	1	C37
	No	0	
2. Record of developmental level	Yes	1	C38
	No	0	
3. Individual programmes	Yes	1	C39
	No	0	
			C40 Blank

NURSERY POLICY

Do you offer places to children :

1. Regardless of age		1	C41
2. Over 2		2	
3. Over 3		3	
4. Over 4		4	
5. Only for 1 year before school		5	
6. Other		6	
Do you make exceptions to this?	Yes	1	C42
	No	0	

If yes, for whom (do not suggest this list)

1. Handicapped children (with special needs)		1	C43
2. One parent families		2	
3. Teachers' children		3	
4. Other		4	
5. 1 and 2		5	
6. 1,2 and 4		6	

Who is invclved in decisions to offer places to children as routine admissions?

1. Head of unit only	1	C44
2. Head of unit and others (specify)	2	
3. Committee (specify)	3	

Do you have a clearly defined catchment area?

Yes	1	C45
No	0	

if yes, by whom was it defined?

Is it strictly adhered to?

Yes	1	C46
No	0	

If it is not strictly adhered to, what exceptions are made?

Do you have a waiting list?

Yes	1	C47
No	0	

If yes, comments (approx. length, function of the list, etc)

Hours of opening : ..... until .....

Are your atarting times

1. Adhered to rigidly	1	C48
2. Flexible within about half an hour	2	
3. Completely flexible	3	

Are your leaving times :

1. Adhered to rigidly	1	C49
2. Flexible within about half an hour	2	
3. Completely flexible	3	

Is snack time organised

1. So that all children eat at once	1	C50
2. So that selected groups sit down together	2	
3. So that children can help themselves if and when they wish	3	
4. 1 or 3	4	
5. Other	5	

Any additional notes

APPENDIX III

Parental Interview

1. Name of child .....

2. Type of unit
   1. Nursery school (full time)
   2. Nursery school (part time)
   3. Nursery class (full time)
   4. Nursery class (part time)
   5. Day nursery
   6. Playgroup

3. Did your child attend any other pre-school unit before this present one?
   No
   Yes

   If yes, details (name of unit, type of unit, dates of attendance, etc)

4. Was the present unit the only one available?
   No
   Yes

5. If no, what else was available?
   1. Nursery school (full time)
   2. Nursery school (part time)
   3. Nursery class (full time)
   4. Nursery class (part time)
   5. Day nursery
   6. Playgroup
   7. Private nursery
   8. Special unit

6. If no, why was this unit chosen?

7. Who suggested this unit?
   1. Health visitor
   2. Social worker
   3. Doctor (G.P. or hospital)
   4. Psychologist
   5. Other
   6. No suggestion made

8. Who made the final decision?
   1. Parents
   2. Social worker
   3. Doctor
   4. Health visitor
   5. Psychologist
   6. Other

9. What, if any, specialist help is your child receiving (read the following list) :
   1. Seen by speech therapist
   2. Seen by hospital doctor
   3. Seen by psychologist
   4. Other

Details :

10. Is any special provision made by the nursery staff?

No
Yes (details)

11. Do you feel that the help he/she is receiving is adequate?

No
Yes

12. If no, what additional help do you feel is needed?

13. Was your child admitted to the nursery in the normal way or was he/she given priority?

14. Do you feel that children with problems such as his/hers should be given priority places in ordinary pre-school units?

No
Yes

15. If you were offered a place for your child in a nursery catering for children with .....(child's particular need) would you

1. Definitely accept
2. Consider it
3. Definitely refuse

Reasons for this reply :

16. Amount of time at present in the unit

1. Full time
2. Part time
3. Less than half day

17. How often has your child been absent from nursery?

1. Rarely
2. Occasionally
3. Frequently

If 2 or 3, reasons for this :

18. Any additional comments :

APPENDIX IV

Manual of Observation Schedule for use in Pre-school Units

A. INTERACTION CATEGORIES

	+ V	+ M	+ NV	- V	- M	- NV	0	Insert 'C' 'P' or 'T'
INI								
RES	1	2	3	4	5	6	7	

+V Positive Verbal : A remark from one person to another which is friendly and non-threatening.

+NV Positive Non-verbal : (a) Physical contact which is friendly and non-hostile. Includes cuddling, taking hands, patting, stroking, touching an object which another is holding. (b) Carrying out an instruction, obeying a request.

-V Negative Verbal : A remark from one person to another which is hostile, threatening, aggressive.

-NV Negative Non-verbal : (a) Physical contact which is hostile, threatening, aggressive. Includes pushing, hitting, snatching toy from another against his wishes, destroying something another is building. (b) Refusing to carry out an instruction or obey a request, e.g. shaking head, running away, turning away.

M Mixed Verbal/non-verbal : Physical contact plus simultaneous verbalisation.

0 No Interaction has occurred.

INI Initiation : Record of the person who made the first move in the interaction.(see C, P and T below).

RES Response : Record of the person who responded or made the second move in the interaction.

C : Child being observed

P : Peer, any other child

T : Teacher, nurse, any other adult.

B. CATEGORIES OF ACTIVITY

Fc	Fs	GA	GM	IP	B	SG	LW		NS
1	2	3	4	5	6	7	8		14

1 Fc Fine perceptual-motor (creative) : unstructured fine perceptual-motor activity; no rigid rules; no right/wrong distinction. Includes modelling, painting, drawing, lego, small construction, stringing beads, some sand and water play, craft activities, some cutting, gluing, carpentry.

2 Fs Fine perceptual-motor (structured) : fine perceptual-motor activity with rigid rules and goals; clear right/wrong distinction since there are limited number of acceptable outcomes. Includes jigsaws, table games (picture bingo, snakes and ladders, ludo, etc), cutting shapes, putting on/taking off clothes.

3 GA Gross physical activity : movement over the ground without use of toys or other equipment. Includes running, jumping, hopping and walking. Location will always be solitary or parallel or group or teacher - if children are involved in GA in association, then SG is recorded (see below).

4 GM Gross perceptual-motor : Gross movement involving equipment or toys. Includes climbing frame, swings, vehicles, chute. Location recorded as with GA.

5 IP Imaginative Play : Child is involved in fantasy; has adopted role of particular person and is acting the part e.g. Superman, policeman, nurse or is pretending that an object represents something else e.g. child uses cutlery to "shoot" as if it were a gun.

6 B Book/story activity : Child is (a) listening to a story being read (b) "reading" by himself - includes books, comics, wall posters (c) listening to a story on record, tape or television (d) listening to an adult talk on a topic of interest (without using a book) e.g. adult discusses recent visit to the circus, explains why we have fireworks on November 5th, tells the children about a fire drill taking place next day, etc.

7 SG Small group activity : Two or more children involved in association without the controlling presence of an adult. Includes rough and tumble play, peek-a-boo, hide and seek, gross physical and perceptual-motor play in association. If an adult has set up the activity and is absent for a few minutes, this is not recorded as SG since adult control is present - the group must be a spontaneous one set up by the children.

8 LW Looking, Listening, Waiting : The child is inactive and is looking or listening to others, waiting for equipment to arrive, or an activity to begin. Location cannot be association.

Blank box for one of five activities to be recorded by initial:

9 M Music/dancing : (a) listening to music on tape, record, television, piano (b participating in songs, dancing, movement to music, singing games.

10 H Helping an adult : To organise, fetch and tidy away equipment, at the request of the adult.

11 T Toilet/washing activities : Includes going to the toilet area, using toilet, sink or mirror, queueing to leave toilet area.

12 S Snacks : Includes waiting for the snack to be served, and eating and drinking.

13 C Conversing : Child is talking to adult or peer and doing nothing else. If he is involved in another activity at the same time, record the other activity only. Location for 'C' is always association or teacher.

14 NS Non-specific activity : Child is wandering aimlessly, not involved in any activity which could be included in the above categories.

NOTE: Category 5 (Imaginative Play) takes precedence over the first four categories. e.g. the child playing at superman may be running around the room but IP is recorded rather than GA. Similarly, if a child is riding his bicycle pretending to be a policeman, IP is recorded rather than GM.

C. LOCATION CATEGORIES

S	P	A	G	T
1	2	3	4	5

S Solitary Play : Child is engaged in activity alone. No child within conversation distance is engaged in the same activity.

P Parallel Play : Child is engaged in activity alongside other child/children. The other(s) must be engaged in the same activity. They work independently and without roles.

A Associative Play : Child is engaged in activity with other child/children. Roles are taken, the boundary of the group is clearly defined, the presence of the other(s) is necessary for the activity to continue.

G Group Activity : Child is involved in formal group activity organised and controlled by an adult. The child's participation can be voluntary or compulsory.

T Teacher/Adult : Child is engaged in activity in parallel or association with an adult. No peers are present. If one or more peer is present and engaged in the same activity, 'G' is recorded.

OBSERVATION PROCEDURE

1. Complete information on the front observation sheet - unit, child's name, date and your initials.

2. Locate child and start stopwatch. Observe for one minute without recording in order to tune into the child's activity.

3. Begin 20 minute observation session. You will complete one observation of interaction, activity and location every 30 seconds as follows :-

   Observe for 20 seconds. Mentally note activity and location in the first second then wait for the first interaction involving the target child to occur. When it occurs, observe who initiated, who responded and whether it was verbal/non-verbal and positive/negative. Immediately complete the first block on the schedule :

   a. Interaction - 'C', 'P' or 'T' in the appropriate box on the top line for initiation and 'C','P' or 'T' on the bottom line for response.

   b. Activity - Circle the number below the appropriate category or place the appropriate initial in the blank box.

   c. Location - Circle the number of the appropriate category.

If no interaction occurs during the 20 seconds observation, record activity and location only. If an interaction is clearly initiated but there is no response, record the initiation in the usual way and put 'C','P' or 'T' in response box 7 to indicate who did not respond.

You have 10 seconds to record before the next observation period begins.

Observe and record continuously for 20 minutes, completing 40 blocks on the observation sheets. Work down the columns of the observation sheets, not across the rows.

APPENDIX V

Example of Coded Transcript

478 Adult and Child are sitting on the grass in the garden.

479 Adult : Would you like to ride on a bike? OB II *

480 Child : No AMB

481 Adult : You don't really like bikes do you. What do you like to play with? OB II

482 Child : A toy AD

483 Adult : What toy? OB II

484 Child : A bike AD

485 Adult : You don't like bikes. You never ride them. C III

486 Child : But I ride my own bike. AD C III

487 Adult : Aah. What colour is it? AD OB II

488 Child : Red AD

489 Adult : Red. Is it a big one or a small one? OB II *

490 Child : A big one. AMB

491 Adult : Who bought it? OB II

492 Child : My daddy bought it for me and my sister. AD

Key :

OB	=	Oblige
C	=	Comment
I	=	Level 1 complexity
II	=	" 2 "
III	=	" 3 "
*	=	Closed two-choice question
AD	=	Adequate response
AMB	=	Ambiguous response

Excerpt contains statements 478 to 492 from a transcript of 498 statements.

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