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THE ROLE OF THE MOTHER AS A PARA-PROFESSIONAL
HELPER IN THE PRE-SCHOOL SETTING

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TO RAFAEL

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A B S T R A C T

The present study compared deployment of working-class mothers, teachers and nursery nurses in day-to-day activities in pre-school settings. Naturalistic observation was used in two pre-schools run on free-play lines located in socially deprived areas. Mothers were observed in the room their "Own" children attended. Teachers and mothers were studied alone and with the other present in order to discover the extent to which the presence of one affects the behaviour of the other. Time spent by mothers in direct contact; indirect contact, dealing with equipment, interaction with adults and not involved was compared with that spent by the other two groups. Direct and indirect contact were analysed at two different levels: (a) all time mothers spent with children was considered, (b) time spent with "Own" children was disregarded. Significantly larger within group differences were observed for mothers when compared with teachers and nursery nurses in direct contact and no activity. Significant differences in direct contact were observed for mothers compared with the other two groups. Significant differences in direct contact were due to: (a) wider within group differences for the group of mothers than nursery nurses; (b) more time spent by teachers than mothers. Time spent involved in no activity showed: (a) significantly more varied behaviour than teachers, (b) significantly more time than nursery nurses. Behaviours observed for mothers appeared to be influenced by how they became involved; those invited by teachers showing more time with the children and less not involved. It was also found that teachers spent little time with "Own" children (large within group differences were found). However, teacher-"Own" child interaction was found to be somewhat lessened for some children due to the presence of the mothers. Mothers in both conditions spent significantly more time with their "Own" children than teachers and nursery nurses.

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P R E F A C E

The idea which gave rise to the present study emerged from my experience in a pre-school centre created specially to give attention to socially and economically disadvantaged children. This was a project which took place in Chile some years ago. I was involved in it together with a group of mothers and adolescent girls from the local community in which it took place. A group of colleagues and students were also involved.

The pre-school centres were located in socially deprived areas and the activities were held in old sheds which had been adapted by members of the community specially for this purpose. They were situated locally and there were places for all those three to five year olds whose mothers wished them to attend. The provision was free of charge and children could attend for either half or full days.

Training sessions were held during the first stage of the project prior to the commencement of the actual children's programme. After this period, mothers, adolescents and students were directly involved working with the children under the supervision of professional staff.

These pre-school centres emerged as an alternative to the more traditional ones. Implementing this sort of provision was thought of as a more realistic approach for offering attention to a larger number of children.

As was the case in the United Kingdom, seeking new alternatives is a necessary step towards a possible expansion of the scarce provision currently available in Latin America. Also, it creates a model which is more in accordance with the real needs of the children.

As happens with most Latin American pre-school programmes (Van Leer Seminar, 1979) this was essentially devised as an action project. Due to financial and practical reasons, no evaluation was undertaken.

The present study, although carried out in a different cultural and social context, was devised as a possible means through which more information could be obtained about such alternatives (i.e. including mothers as para-professionals in the pre-school setting).

As such, the goal of this study is essentially a social one.

The possible implications of the present study for the future development of Latin American pre-school programmes are discussed in Chapter 7.

INTRODUCTION

Long before the equal rights movement took place in the U.S.A. during the 1960s, it had been recognised that there is a group of children who are living under conditions marked by social and economic disadvantage (Denison, 1978; Evans, 1975). Institutions had already been organised in order to protect and give some sort of care and education to working class children (Biber, 1977). The predominant ideology which impregnated this work can be characterised as being orientated towards giving children some form of charity (Nadler & McAfee, 1979). Since the 1960s, there have been long and sometimes inconclusive arguments as to what the main characteristics and causes of disadvantage are. Even more recent literature (Rutter & Madge, 1976) points out that there is still some disagreement regarding which variables can be considered as most conducive towards disadvantage, although there is a large consensus of opinion about its existence. J. Tizard (1972) has argued that despite disadvantage being able to take on more specific forms in different countries, "in most societies there are various groups whose pattern of upbringing and social behaviour may be strongly at variance with those of the wider society, so that adaptation to the wider society is impeded". It was as an answer to the problem of these groups that the War on Poverty was declared in the U.S.A. (Rapoport et al., 1977; Denison, 1978). The solution which was thought of in the 1960s, i.e. sending the children to pre-school establishments, had also been initiated a long time previously. However, the way in which the problem of poverty was faced as well as the kinds of programmes which were then thought of, were radically different from all the preceding ones.

The emergence of the pre-school was embedded in all the other social and political events occurring simultaneously and the idea of

compensatory education via the pre-school, was only one of the measures which was taken then in order to improve the condition of working class families. The emergence of compensatory pre-school programmes was based on recent publications stressing the importance of the development of the child during the early years of life (Yarrow et al., 1971). At the same time, researchers were now placing greater emphasis on the effect of the environment on the development of the child (Hunt, 1961; White, 1959; Bloom, 1964). Several different programmes emerged, all varying considerably in design, but all seeking solutions through which children who were living in conditions of poverty could be given better chances in their development. These programmes were centred not only on the social and emotional development but also on the cognitive development of the child.

There was a strong belief in the importance of early experience which was the major contributory factor in the decision to expand nursery education. This movement could be observed throughout the developed world (Woodhead, 1979) but was given particular importance in the U.S.A. and Britain (Tizard et al., 1976 a). It was thought that the expansion of pre-school services would offer children a better and richer experience than they received at home. As a result of this, it was hoped that the lower academic achievements observed at later stages could be improved (Halsey, 1972). Apart from asserting that this would be an important experience, investigators were unable to be more precise about how such provision would help the child develop in a different way (Yarrow et al., 1971). When these programmes had been operating for a short while, American researchers showed that the cognitive gains of these children were not as had been expected. Primary school teachers did not evaluate the social and emotional development of those children who had been through the programmes as any better than those who had

not (Thomas, 1973). The evaluations carried out were numerous (Cicirelli & Granger, 1969) and most of these centred on studying the possible cognitive gains made by the children attending the programmes. On the whole, such evaluations were pessimistic and several explanations were looked for (Halsey, 1972; Bronfenbrenner, 1974).

The evaluation of this experience was made from different perspectives which did not place the same emphasis on the children's gains (Tough, 1973; Smilansky, 1968). The approach which is considered to be one which brought a further understanding of the pre-school influence was that used by Tizard et al. (1976a). Their attention was focused on the processes taking place within the pre-school setting. When evaluations went beyond the consideration of cognitive gains which working class children had made, several interesting observations were made (Bronfenbrenner, 1974; Woodhead, 1976b, 1979; Nedler & McAfee, 1979; Tizard, J., 1972; Tizard et al., 1976a). Amongst other observations, researchers held that the pre-school settings were alien to the experience of working class children (Midwinter, 1975) and also that the amount of individual attention which these children received was much less than the level which was thought to be necessary (Tizard et al., 1976b; Cazden, 1966). Others (Midwinter, 1975; Woodhead, 1979) have argued that the way in which the programmes were set up was not conducive to learning for the children in most need and in fact that the reverse was true. As a result social class differences would be increased.

These observations have led to several discussions on the possibility of seeking new alternatives which should be tried out in an attempt to overcome at least some of the more symptomatic problems which have been described. Suggestions such as bringing into the pre-school some elements of the working class families and trying to seek links between

home, school and the community as a whole, have been made. One solution offered in the literature (Tizard, J., 1972, 1978; Woodhead, 1976b, 1979) is that of bringing working class mothers into the pre-school settings.

The present research attempts to answer some of the questions which arise once mothers become involved. It considers two basic questions. The first deals with the nature and extent to which mothers, when involved in the classroom, differ from nursery nurses and teachers. The second is the extent to which children whose mothers were involved as helpers were affected by the mothers' presence.

In the chapters which follow an attempt is made to examine many of the important background issues which gave rise to the present study. The early chapters deal with the psychological, educational and social context for the study. Subsequent chapters deal with methodological and technical considerations and these are followed by the study itself, its results and conclusions.

P A R T 1: T H E P R O B L E M

CHAPTER 1: BACKGROUND LITERATURE

1. Pre-School Education as a Response to Social and Economic Disadvantage

1.1. Pre-School Education: An Old Response to the Social Conditions of Working Class Children

The fact that there is a group of children who are living under socially and economically disadvantageous conditions has been extensively recognised. The literature, however, is not sufficiently clear as to what disadvantage means and authors seem to differ in terms of what the characteristics are, attributed to these children and their families (Tizard et al., 1980; Rutter & Madge, 1976; Woodhead, 1979). Nevertheless, concern about social disadvantage and its effects on educational attainment could be observed in many Western industrialised nations especially during the 1960s as well as in the U.S.A. and it led to the formulation of educational policies designed to improve these children's life chances (Woodhead, 1979).

In the U.S.A., the Civil Rights Movement, a movement towards the implementation of several means by which to help diminish the effects of the large problems currently affecting the poorest areas, emerged in the 1960s. It brought into focus a U.S.A. which was impregnated by socio-political and economic problems giving rise to movements of protest which, although coming from different areas and sectors, co-occurred. The then president of the U.S.A. designed a political platform which was to be called "War on Poverty" (Nadler & McAfee, 1979; Rapoport et al., 1977; Denison, 1978). Several programmes emerged as a result

of this movement. It is the concern of this section to analyse those projects in which young children were involved.

There is an abundance of references to these programmes and their results (e.g. Evans, 1975; Bronfenbrenner, 1976; Nedler & McAfee, 1979; Denison, 1978; Pratt & Travers, 1979). On the whole, they are described as programmes which were very much geared towards the idea of tackling some of the problems of health, nutrition and education. Several measures were taken in them towards the amelioration of the health and nutritional condition of many of the children who came from the areas in which poverty was most clearly shown (Grotberg, 1971). In the educational field several programmes were implemented and they were called the compensatory programmes. According to Halsey (1972) and Bernstein & Davies (1972) these American programmes influenced the educational measures which were then taken in the United Kingdom.

Pre-school education has always been orientated towards poor children, but was initially concerned with the improvement of the conditions to which children of disadvantaged families were subjected (Woodhead, 1979; Nedler & McAfee, 1979; Denison, 1978; Evans, 1975). Recent analyses show that now the impetus comes from a much broader social and political, as well as an educational base. It is, to a large extent, centred on how to achieve equality between children coming from different social class backgrounds and achieve equality within the society as a whole. Before entering fully into the type of programmes which were implemented and their pros and cons, some important aspects need to be considered.

As Woodhead (1979) indicates the objective of giving each child an equal chance in life seemed frustrated by the evidence that many children were at a disadvantage even before commencing school. Such children already showed poorer performance from a very early age onwards in

measures of cognitive development compared with their middle class peers.

Although opinions vary considerably as to what the results of the compensatory programmes are, according to Bronfenbrenner (1974), Gray & Klaus, 1969 , Karnes (1969) and Lally et al. (1973) one of the clearest findings resulting from the evaluation of the Head Start and other programmes in the United States was that only in programmes in which parents were involved in close partnership with schools do children achieve gains which do not simply "wash out" once the child leaves the pre-school.

Evans (1975) points out "parental involvement is one factor that early distinguished more from less potent compensatory education programs" (page 340). Even though research work has reinforced the development of parental involvement recently, rather little is said of it in the nursery school literature (NUT report). Midwinter (1975) argues that although this aspect has been considered it does not receive the same attention as other factors.

1.2. Parental Involvement: A New Alternative to an Old Problem

Within the field of pre-school education parental involvement has taken different forms:

- (a) home-based projects in which home visitors make frequent, regular visits to homes,
- (b) school- or centre-based projects, encouraging mothers to act as helpers in the normal school programmes, which has them involved at different levels,
- (c) combination of the two,

- (d) other forms, such as giving practical knowledge of child development to older pupils in secondary schools.

Only home-based and school- or centre-based programmes will be reviewed here as these are the two most related to the present study.

(a) Home-based Projects or Projects with Children under Three

These have been tackled in different ways. For Nedler & McAfee (1979) the Home-Start, an alternative for the younger children of Head Start (Gordon, 1969), was the first large-scale effort to demonstrate the potential of working with parents to enhance their children's learning and development. What is of interest to the present study is that those projects which did not incorporate the mother showed a regression of scores several years after the experience (Schaefer, 1969). These programmes may include working with professional workers (e.g. Lally's 1971 programme) or working with home-visitors who are themselves women from that same community (Levenstein, 1971; Midwinter, 1974).

Some programmes utilised Education Visitors to help the parents become aware of the child's needs (Levenstein, 1971; Gordon, 1969). In these programmes the work is geared basically around the mother rather than the child.

(b) School- or Centre-based Projects

Several forms of involvement have been tried with parents of children of three years of age or over. Such projects have been described by Gordon (1970), Day (1977), Ambron (1977) and in a report from the Stanford Research Institute (1975). Evans (1975) has noted that

they range from those in which parents are only expected to have what he has called a "minimal involvement" to other in which there is a complete parental control of the early education programme. At the first level are programmes in which parents serve as an audience for educators who pass along words of wisdom about child development, education and the things that parents should know and understand about such matters. Minimal involvement may also extend to a system for periodic parent observation, albeit passive and acceptant, of activities in the school setting.

The second level of participation identified by Evans has a form which enables parents to participate directly and actively when teaching their children. As a rule, educators decide how parents can help and set up the programmes with which parents must comply. It is usually at this level which parents learn how to encourage language development and exercise disciplinary control.

The third level of involvement can be regarded as that level at which parents are in charge of dealing with equipment and supervisory activities. This may include helping directly with the children but this has to be supervised by the teacher.

In the most advanced level of involvement parents share some of the teacher's main educational tasks.

The research to be described here took place amid much discussion on the importance, convenience and/or effects of the involvement of parents in pre-school education (Tizard, J., 1975; Tizard, J., 1978; Evans, 1975). A review of the literature indicates that a considerable amount of interest has been paid to the impact of this involvement and its benefits for the educationally disadvantaged child. Attention has also been paid to the different ways in which these programmes have been implemented, and there is a wide consensus of opinion (Midwinter,

1974; Chazan, 1978; Bronfenbrenner, 1976; Tizard, J., 1976; Tizard, J., 1968; Evans, 1975; Nedler & McAfee, 1979; Woodhead, 1979) on the needs for creating alternatives to the existing pre-school patterns. Amongst others, Tizard & J. Tizard (1971); Ambron (1977), Evans (1975), Halsey (1972) pointed out the need to extend research into other areas of pre-school activities and to consider ways of bridging the gap between home and school. Several researchers (e.g. Tizard, J., 1975; Evans, 1975; Woodhead, 1979) regard the mother's involvement in pre-school activities through para-professional work, as an important aspect. They also emphasise this point as a possibility for implementing universal pre-schooling in more realistic terms.

The present study, following this emphasis in the literature, was undertaken with the intention of looking at the way in which mothers become involved as para-professionals in pre-school settings.

1.3. Advantages regarding Parental Involvement

It has been suggested (Woodhead, 1978; 1979; Bronfenbrenner, 1975; Tizard, J., 1972; 1975) that involving mothers who come from socially and economically deprived areas in the day-to-day activities of the pre-school could enable working-class children to gain additional benefits from attending pre-school centres.

Several reasons for this have been mentioned. J. Tizard (1972) stresses that it would encourage parents to communicate with teachers, which in turn would improve their opinion of themselves. This could also stimulate parents of different sub-cultures to join the school which would benefit all children. He adds that parental involvement has also been viewed as a way of "pressing socio-cultural features which may militate against activities designed to change protective family-child

relationships". Evans (1975) sees that the problem of the gap between home and school can be lessened if parents are brought into school even to a small extent. With the knowledge they acquire there, they can offer a back-up for the children at home. This is particularly valid for children with problems.

Other reasons have been given. Honig (1972) argues that there are those who think that by involving parents the "professionalism" which may be found in certain teachers could alienate parents as well as the community. Therefore, if parents were not to be involved in these school or centre programmes, teachers' attitudes could easily contribute to the "isolation of already alienated poverty parents" (page 5). Honig (1972) points out that if the mothers' sense of self-competence and achievement with regard to child-rearing is built upon, they may relate more easily to the problems created by poverty or ethnic discrimination.

For Nedler & McAfee (1979), working with parents has a number of advantages. Amongst others, the most evident is that parents as aides and volunteers enables a more direct and personalised approach when working with the children. This is something which is needed because limited amounts of direct interaction have been observed to take place in pre-schools between the staff and the children (Tizard et al., 1976 b; 1980).

Woodhead (1979) says that having parents at school brings positive results and this is basically so when they bring with them a wider variety of cultural and ethnic backgrounds, thus giving the minority group children the chance to feel more integrated and more on equal terms with the other children. This is especially true for children coming from immigrant families. These children are frequently faced with problems created by their racial origin, different language and culture.

Honig (1972) has stressed this same point.

Evans (1975), Bronfenbrenner (1976) and Nedler (1977) all feel that there are positive effects on later learning skills when parents are incorporated in their children's education at primary levels. They also say that not much has been found out about the non-cognitive effects of such education by parents, but it is likely these effects (e.g. emotional) would be negative, mainly in children of immigrant workers (Woodhead, 1979).

Evans (1975) says that when programmes with parental involvement are implemented, there is the risk that once parents are aware of the virtue of early intellectual stimulation, they will push their children harder and assess them only according to whether they reach their own predetermined academic goals. This need not happen if the problem is realised and a wide perspective is maintained. It has also been pointed out that parents who become more actively involved report feeling an improvement in their self-esteem (Nedler & McAfee, 1979; Evans, 1975). According to Evans, improvements in mothers' feelings are not independent of the actual programme, i.e. good results are connected with education programmes initiated both within and outside the home.

It is widely held that any education, especially in the early years, which does not involve parents, notably fails to a considerable degree and has little chance of a long-term impact (Bronfenbrenner, 1975). This derives from the heavy weighting of home and neighbourhood influences on educational attainment and, consequently, this raises the need to find a rapport between home and school upon which the child might fruitfully develop (Midwinter, 1975).

1.4. Other Forms of Provision: Needs and Results

Pre-school availability or any other sort of provision which mothers can use when in need, has been described as more limited than that which is required to meet the parents' and the child's needs (Rapoport et al., 1977). They argue that the problem appears to be of such a magnitude that "it will require not only the decisive interventions called for by J. Tizard and his colleagues (1976) but also a variety of locally-created options" (page 260). For Rapoport et al. this means not only serving the needs of parents and children, but also improving the community spirit.

Other programmes have been implemented to provide for those who need help. However, the literature shows that the way they have been implemented and the number of places available do not solve the problems of those most in need of the help. Midwinter (1975) argues that this is due to the fact that much has been left unconsidered when implementing pre-school programmes. J. Tizard (1975) argues that programmes have been developed without considering the real needs of the working-class family and as has happened with the Welfare Clinics, even though the facilities exist, many mothers will not benefit from them.

This has occurred already with the part-time pre-schools. It can be seen that mothers do not seek half-day services which accounts for the fact that there are empty places in some part-time nurseries (Tizard, J., 1975). Midwinter (1975) considers the answer would have to incorporate what Halsey (1972) calls "local diagnosis" in order to select the most suitable pattern for the vastly differing needs of each district or town. Lack of attention has led to a vast group of children being non-attenders.

Apart from nursery schools and classes the other facilities which have been made available and are most frequently used are day-care,

childminding and playgroups.

Day-care has been developed in this country in order to give attention to the deprived child, while mothers are at work. This system has been described by J. Tizard (1975) as very inadequate and discriminatory as compared with the attention given in the nursery schools and classes.

In relation to child-minding, Jackson (1973) has warned of certain inadequacies of the system used so extensively by working mothers and says that the number of children cared for in this way has increased enormously. According to J. Tizard (1978) it appears likely that in England and Wales at any one time over 100,000 children are child-minded. He argues that on the whole, the relationships which have been found to be present between minder and parent are characterised by commercialised ideas and an uneasiness. Mayall & Petrie (1977) argue that in their study they found that the minder-child interaction was not based on an intimate relationship. They say that on the whole the children are seldom talked to by the minder and seem to be quieter and more subdued than the children attending nurseries.

With respect to the third alternative, playgroups, these are based on half-day services. This is a solution based largely on mothers' participation and has tended to develop with good results in middle-class areas. Joseph (1972) argues that the requirements of children defined in her research as having special needs, are not met adequately by the playgroup. She points out that this is partly due to the fact that in some groups children are admitted on the grounds of their mothers' ability and willingness to participate. Mothers who are normally willing to help and even, in several cases, go off on special courses, are not the mothers of the children with the greatest need.

Although there is an ever increasing demand for pre-school

provision, figures indicate that this demand is not met. This is because it is not available or the hours during which it functions are not suitable. The Thomas Coram Research Unit (1975) obtained results indicating that less than 10% of the mothers in the house-to-house survey of 350 mothers and children, living in three contrasting areas of London, would choose a centre opened for three hours per day. The second interesting finding is that about one-quarter of these children would be sent to whole-day provision from one year old onwards, if that were possible. A further 30% would like pre-school services which would finish at the same time as the school days, for their children over two years of age; and 60% of mothers would like this for their children of three and four years old.

Two other factors which ought to be taken into account when considering the provision which is made available are, firstly according to Rapoport et al (1977) that there is an increase in the number of married women who have pre-school children and are entering employment. J. Tizard et al. (1976) point out that "In Britain in 1971 there were nearly 590,000 mothers of pre-school age children in paid employment, with a further 48,500 seeking paid work, waiting to start a new job or employed, but off sick. This means that for 1,000 mothers with young children, 187 were employed and a further 15 were economically active but out of employment" (page 123). Of those mothers who had children under five, about 176,000 were employed in full-time work. They say that during the 1961-1971 period, mothers going out to work while bringing up a family has become increasingly common.

It has been observed that although in general it can be said that men's participation rate in the labour force has declined or remained unchanged, the participation of women appears to increase. The United Kingdom figures indicate that for the population from 15 to 64 years of age, men decreased by 5.7% between 1960 and 1970, whereas for women the

This idea has been strongly criticised (Labov, 1969; Robinson, 1980). However, despite these criticisms, programmes have frequently been described as language-orientated (Tizard et al., 1980; Ambron, 1977).

Although the theoretical goal of many such programmes has been the improvement in language development of working-class children, analysis of what actually goes on in the pre-school settings shows that on the whole there has not really been much work directed at this (Tizard et al., 1976; Cazden, 1966).

A study carried out in 1972 (Schools Council) presents data indicating that teachers rate the social and intellectual development of children as the two most important goals of nursery education. When asked for their views on their role, they expressed quite emphatically their preference for programmes in which teachers have a clearly defined part. When variables like age were related to the views given, figures indicate that the older teachers (45+) show clear preference for teacher-centred programmes, while younger teachers did not really show any marked preference for teacher or child-centred programmes.

5.2. Characteristics of the Settings which have proved to be most Beneficial

Having said that, this review will be centred on studying to what extent working-class children attending pre-school provision have real possibilities of further developing their language and social skills. In this review, attention is given to those characteristics of children which have appeared to be related to the amount of attention they receive from the staff, such as age, social class, racial origin and sex - all aspects which are referred to later. Research has also shown that some characteristics of the staff are bound to indicate differences in terms of the amount and nature of the attention they give to the children.

5.2.1. Staff's Characteristics

Certain characteristics of the staff have shown to be especially important. These are age, social class, training, the perception they have of their educational role, the goal set for that particular pre-school - whether educational or otherwise and the social organisation of the setting they work in. This last point is in terms of power structure, staff:child ratio and the sort of plan implemented in the setting. It is quite clear from the literature that although for practical reasons these factors may be isolated, when observing them in the everyday ongoing reality of the pre-schools, they appear intermingled and difficult to differentiate. As an example of this, Tizard^J et al. (1971) found that staff conceptions of their role and the social structures of the staff group had a more significant effect on the amount of interaction the staff had with the children than did a high staff:child ratio.

This same relationship is found when analysing research work which has shown that while improvements in staff ratio are likely to be valuable, the number of extra members of staff depends entirely on the role to which they are assigned and the benefit to the children may be more limited than would at first appear (Tizard et al., 1976a). This is often the case with voluntary help: unless specific tasks or responsibilities are allocated, the contribution of those who are helping may be unsatisfactory to all concerned (Woodhead, 1976b; Evans, 1975; Nedler & McAfee, 1979).

In relation to staff:child ratio, Woodhead (1979) has pointed out that one of the agreements of the Venice Symposium held in 1971 is that "the number of children per teacher at pre-school level should be lower than that for later stages, and should never exceed 25" (page 14 - 15). However, when programmes are analysed in terms of what is actually

taking place, a great disparity can be observed. Countries like the Netherlands have classes as large as 31 children per one adult, whereas in Sweden the ratio is 15 children per one adult (Austin, 1976b). This difference between Sweden and other countries is due to the policy of employing many more para-professionals to work with the children. Woodhead (1979) reports that in Sweden the ratio of children to each teacher is in fact higher than in other countries, if para-professionals are not taken into consideration, reaching a ratio of 41:1.

On the whole, discussions of staff:child ratio have been considered as more important in some countries than in others, and they appear to be somewhat contradictory. Fowler (1975) holds that although improving staff:child ratio is not in itself going to produce sufficient changes in the quality of attention given to day-care children, he feels this is a very important variable which ought to be considered. Provence et al. (1977) have placed even more importance on a small staff:child ratio. Tizard et al. (1976a) have argued that their data points to the fact that although the staff:child ratios should be an issue which ought to be taken into consideration in order to improve aspects such as language development, this is a less important point in relation to other variables - such as the way the staff see their role - concerning the development of children.

Considering one other variable, Tizard et al. (1976a) postulated from their research work that both staff behaviour and children's language development are significantly related to the social organisation of the institutions. Within this same framework, they developed a study which would enable them to see how social structures affect speech habits. They postulated from their research work that both staff behaviour and children's language development are significantly related to the social organisation of the institutions. Children's

attainments and language development were closely related to the autonomy of the staff in the institution. Another important finding related to this is that the staff hierarchy overrode the effects of training. This was seen in studies carried out by Tizard et al. (1973; 1976a) in which they point out that they have found that students and assistants showed a tendency to interact much less with working-class children than did the staff who were in charge of a group. On the whole, these studies showed that in all centres it was seen that staff not in charge gave less information, fewer suggestions, used negative control more often and spent more time dealing with equipment as well as in minimal supervision. However, when the same staff who had shown this behaviour were observed in charge of a group a different pattern of behaviour was seen.

The fact that the social structure of the centre has some influence on the behaviour observed for the staff may very well mean that within certain settings the contribution which additional staff may make will be reduced by its organisation.

5.2.2. With respect to the Programme

When facing the problem of cognitive content given by the staff in different pre-school centres, Tizard et al. (1976a) found that the overall cognitive content of staff behaviour was (as has been mentioned previously) greater in pre-schools which included a daily language session. They pointed out that the staff in this type of centre might have been sensitised to the cognitive aspect of their work by the introduction of the language programme. They comment that the implications of this argument would be that altering the staff's conception of their role, by convincing them that they can influence children's cognitive development, may be more important than giving them

extra training.

Tizard et al. (1976_a) studied staff behaviour in three different English pre-school settings (the centres were different in their social class composition), i.e. nursery schools with special language programmes, traditional nursery schools and nursery groups with only limited educational aims. The staff varied in their training and experience. The findings suggest that staff training is not a significant factor in affecting staff behaviour in the pre-school setting, but that the most important variable is the educational orientation of the nursery. Staff in nurseries with additional language programmes saw their role as one having great influence on the child's cognitive development. Stanley (1972) has given evidence stating that staff studied in the U.S.A. have shown that programmes which do not have an educational aim are less likely to show cognitive gains for children. Tizard et al. (1976_a) have argued that when assistants are studied it is found that they place less emphasis on cognitive development in establishments which do not make their educational goals clear.

The way in which the programmes are implemented has proved to have an important influence on the outcomes reached, and free play as well as informality (Doke & Risley, 1972) have proved to be less convenient for deprived children. Programmes which are well structured (Karnes, 1969) or have some sort of language programme involved (Weikart, 1972) have been more highly recommended than the less formal ones. Thomas (1973) has pointed out that traditional nursery methods through self-directed activity have not led to many beneficial effects either within the cognitive and linguistic areas or in social adjustment.

Much discussion has been centred around the advantages and disadvantages which the directed or structure of the programmes as such have on the child's learning. Some researchers (Day, 1977; Ambron, 1977;

White et al., 1973) have argued that the more directive the programme seems to be, the larger the gains in scores. However, they do not all agree on why this should be the case. Some (e.g. White et al., 1973) think it is due to the fact that the programmes which are more directive are those which use teaching methods or tasks which have greater resemblance to tasks which they are given to solve in a standardised test. Cazden (1972) states that in more directive programmes, teachers are expected to spread their time almost equally between all children, whereas in the non-directive ones this is not necessarily the case. This is a very important aspect to consider because research has shown that on the whole the amount of time that staff are seen with each individual child is very limited (Chazan, 1978). As an example of this, the Tizard et al. (1976) study will again be mentioned. They have presented data indicating that in their research, which was concerned with play, they found that for only 2% of the time each child was observed at play, a member of staff was observed playing together with him. They say that although in middle-class pre-schools the staff not only talked more to children, but also played with them more often, it is noted that on the whole staff are observed to spend little time with each child.

5.2.3. With respect to the Children's Characteristics

Sex Differences

Given that the present study will be concerned with the role of mothers as helpers in pre-schools, it will be useful at this point to consider the evidence for differences in mother-child interactions as a function of the child's sex.

Research work in the area of sex differences has pointed out that some differential behaviours have been observed in terms of the way in which children tend to spend their time, the sort of play they get involved in and the way in which their play preference was found to interfere with their interactions in the pre-school setting. It is thought that there is possibly a link between the type of play in which children tend to become involved in, and the amount of interaction they will tend to have with the staff (Tizard et al., 1976c). It is clearly outside the scope of this study to debate either a biological or a cultural basis for sex differences. The literature indicates that differences observed in staff-child interaction according to the child's sex are not only found within the nursery school environment of the child, but are also and basically influenced by other factors, and that, as Hutt (1978) argues " . . . in the socializing process, components of nature and nurture are inextricably intertwined" (page 185).

Thoman et al. (1972) observed primiparous mothers with their newborn babies and reported that right from the start baby girls were talked to and smiled at significantly more than were baby boys. Moss (1967) reports a study in which mothers were observed to stimulate their sons more physically and to imitate their daughter's verbalisations with greater frequency. According to Moss (1967) it seems that even at three weeks when vocalisation was almost identical in amount, girls were being socialised into a more verbal, person-oriented mode of behaviour.

By the age of 13 months Goldberg & Lewis (1969) report that mothers were found to react differently to boys' and girls' play. Girls were found to be, and encouraged to be, more dependent on the mother than were boys. These authors see differential response on the part of the mother not solely in terms of reinforcing what they understand as

appropriate sex behaviour, but also as a response to differential behaviour by the child. In a further study, Lewis & Messer (1972) considered sex differences in the attachment and play of 13 month old infants. They found girls vocalising more than boys and also showing more attachment behaviour such as following and touching. Boys were significantly more oriented towards exploratory behaviour in their play. Fagot (1978) found that when interviewing mothers they would receive spontaneous comments that their daughters appear more competent than the sons of their friends. Fagot states that she found that boys were allowed to explore more and to learn about the physical world with less chance of criticism than girls. In an exploratory or stressful situation girls show more dependency upon their mother and, in turn, mothers are more protective towards their daughters and show less haste in encouraging independence or autonomy in them than they do in their sons (Baumrind 1967; Hoffman, 1972).

Fagot (1978) argues that in spite of the fact that she has found some sex differences in terms of parents' behaviour and that although parents have sex stereotypes this does not coincide with the actual process of sex role socialisation and that more studies need to be done in this field to clear up the picture.

Lewis & Messer (1972) say that whether sex differences were biologically or culturally induced, the main point is that they had significant implications for the development of differing cognitive abilities of girls and the exploratory behaviour of the boys resulting in a different approach to the environment.

5.2.3.1. Sex Differences and Play

In the study of play, research tends to incline towards sex differences in aspects such as choice of material and organisation of

play, both of which can be expected to affect the quality and quantity of social interaction observed in nursery schools. This is with regard to child-child interaction as well as to staff-child interaction (Tizard et al., 1976b).

A review of the literature indicates that boys were more often involved in physical activities while girls were to be found in sedentary or literary pursuits (Brindley et al., 1973). Clark et al. (1969) found that boys tend to spend more time than girls playing with blocks and with pushing toys whereas girls got involved more with table activities and dolls.

5.2.3.2. Child-Child Interaction

Parten (1932) indicates that for him social interaction is a function of the activity chosen by the child. He found that boys preferred toys which lead to parallel play, whereas girls' play leads to more social interaction.

In general terms, the quality of play can be thought of as creating different social relationships between children according to their sex. As such, and as Smith & Connolly (1972) suggest, physical activity, group play, parallel play or playing alone - contrary to dyad play, table and stationary play - are not conducive to verbal interaction. Smith & Connolly (1972) argue that the sort of play in which girls were found to become involved with greater frequency, were all activities which correlated highly with child-child interaction. They found significant differences between boys and girls on a factor labelled 'talking to another child', with girls more likely to be involved in such behaviour. Once again, the overall physical activity level of the boys was higher. Clark et al. (1969) found that boys played more with boys and that while girls played mainly with girls, the preference was

marked and that girls spread their interactions more widely. Hutt (1972) argues that boys tend to play in groups or on their own with greater frequency whereas girls are found to become involved more in dyads or trios.

Brindley et al. (1973) observed that girls engaged in social interaction more frequently than boys and that they exhibited more co-operative behaviour, especially in 'caring for' younger children. According to Goodenough (1957), girls appeared more interested in people and pursue their interest through verbal interactions while boys are more oriented towards objects and physical activity.

5.2.3.3. Staff-Child Interaction

During the pre-school years adult figures are influential socialising agents and as such parents and teachers play an important part.

In Thompson's (1973) small-scale study, girls showed a significantly greater tendency to initiate interactions with the staff which could be categorised as seeking or maintaining attachment, while boys showed a greater tendency to initiate interactions with the intention of seeking arbitration. When the staff's initiations were studied it was found that teachers tend to exert significantly more verbal control on boys' behaviour than on girls'. Blurton-Jones (1972) found that the amount of boys' behaviour diverted towards the teacher decreased with age, whereas girls showed no significant decrease. He suggested that boys' peer relationships took them away from social contact with the teacher whereas girls came increasingly more in contact with the teacher. Blurton-Jones (1972) observed that girls were continually showing the teacher what they had done, which resulted in the bestowal of praise.

Serbin et al. (1973) found that boys received more instructions and nurturant attention when participating appropriately in class activities. Boys were receiving more reprimands for aggressive behaviour even when the differential base rate of such behaviour by boys and girls was taken into account. When staying close to the teacher, girls would receive more attention than boys. In this field, Fagot (1978) found that teachers answered more questions from girls and gave them more favourable comments. Fagot also observed that boys are more often found in activities which do not lend themselves to teacher interaction and consequently they were receiving less teacher attention.

Biber et al. (1972) argue that girls received more instructional contact than boys, but that this was due basically to the fact that girls participate more in instructional activities than boys. Serbin et al. (1973) found boys were significantly more aggressive than girls and that girls were significantly higher in those measures indicating proximity to teachers. Teachers reacted more to aggressive behaviour coming from boys and were more likely to respond to them with loud reprimands. They also found that teachers would reinforce more physical proximity in girls by giving them more attention.

Girls appear to have greater need for approval (Garai & Scheinfeld, 1968) and this behaviour could result in greater staff-child verbal interaction.

5.2.3.4. Other Aspects of Sex Differences

Some other aspects of sex differences have been studied, such as the relationship between the sex of the children and the social class they come from (Wootton, 1974; Newson & Newson, 1968). Studies have shown (Tizard et al., 1976a, 1976b, 1976c) significant social class

differences, indicating that working-class children on the whole prefer outdoor play. Although in the Tizard et al. (1976c) study this factor was not found to contribute to significant social class differences in social interaction with staff, they believe that the setting of the nursery schools in which free play programmes are provided would allow the working-class child to avoid the educational interactions with the staff and thus diminish the beneficial aspects that staff-child interactions can have.

Brophy & Good (1974) argue that child variables such as race, social class, physical attractiveness, academic achievement and even quality of hand-writing are related to a teacher's behaviour towards a student.

In synthesis, the information just described indicates that researchers have argued that girls show behaviour profiles which tend to be the ones preferred by teachers, and which will eventually lead them to behave in a way which promotes greater possibilities for academic success. As Fagot (1978) has indicated, in order to be better accepted by teachers, boys have to change their behaviour patterns from those which appear to be more spontaneously performed by them to those which are best accepted in the school settings. Furthermore, when entering primary school education, boys appear to suffer from greater problems than do girls in the same settings (Hughes et al., 1980).

Differences between the way in which nursery teachers become involved with girls and boys in these early years tend to be congruent to those which research work mentions in connection with the differentiated relationships mothers establish with their children from birth onwards (e.g. Moss, 1967; Goldberg & Lewis, 1969; Lewis & Messer, 1972).

Therefore, these sex differences are not only observed between the mother and the child, but clearly transcend this relationship and penetrate into that held between female staff and children in pre-school settings as well as into other relationships (e.g. child-child). The process which children go through in the interactions they hold with their mothers is to some extent replicable to that which female staff establish with the children. Consequently, during pre-school years girls are receiving more and different kinds of attention to that of boys. This is a dimension which has not been considered yet in pre-school programmes and this is even more important if consideration is given to data (Britain 1976, Appendix No.I) indicating that the number of children attending this level of education is higher for boys under five than for girls of the same age. This difference is noticeable when the numbers of both sexes are compared in terms of children attending nursery level, part-time education in maintained schools.

5.2.4. Cultural Differences

Increasingly, teachers have been asked to give attention to children coming from different social groups including those children from other cultural backgrounds. Very often children of immigrant parents speak a different language at home than they do at school. As this has been considered as a very important dimension in the child's development these groups are given preference when allocating pre-school places. As cultural differences have been described to be bound to produce social disadvantage in the Western world (Woodhead, 1979), this aspect has been synthetically covered in the following section.

Evans (1975) has said with regard to compensatory education that "thinking about the disadvantaged child as deficit ridden was a reinforcement of ethnocentrism regarding any deviation from the white middle-class

norm" (page 11). A prevailing attitude seemed to equate cultural differences with cultural deficiencies (Cole & Brunner, 1972). For Evans (1975) this way of thinking is to some extent changing and now it is increasingly being acknowledged that cultural deficiency or deprivation is one aspect of cultural differences. These cultural differences become more apparent on entering primary education, when children are expected even more to cope in a way which might be new and inconsistent with their previous cultural experience at home and in their own community.

5.2.4.1. The Migrant Child and His Family

Woodhead (1979) states that there is a general tendency towards seeking alternatives through which the migrant child, who usually speaks a different language at home, can feel integrated into the schools. The most frequently observed procedure used is to assimilate children (Woodhead, 1979). Consequently, the foreign migrants adapt themselves to the characteristics and customs of the people living in the host country. He argues that this process is, in general terms carried out as a "passive assimilation" (page 52), i.e., the child is simply expected to pick up the language of others. He cites a study carried out in Federal Germany (1976) which indicated that social perceptions are formed at a very early age, and that the children themselves, both indigeneous and migrant, may have already formed attitudes about what language is preferred and is considered socially best by the time they reach school age. This would extend to lifestyles and customs. The end result of this adaptation of the child to the ways of speaking and living can lead to them considering their own language and ways of behaving (and thus their parents' way) as inferior (Woodhead, 1979) or at least different.

5.2.4.2. The Migrant Child and His Peers

According to Hartup (1978) and Asher (1977) children and their friends resemble one another in racial characteristics. Hartup (1978) argues that social attitudes towards race vary with age. Racial cleavages are based on co-operation and affection rather than hostility at early ages, but these attitudes change into more negative ones with age. Milner (1975) states that research in Britain has demonstrated that, contrary to popular belief, children are aware of the differences which exist amongst themselves in terms of colour and, furthermore, they have been found to ascribe a higher value to whiteness.

There is an urgent need for greater attention to be paid to the problems caused by cultural differences. Much more research is required, firstly to enable a deeper understanding of where these differences lie, and secondly, so that programmes could be planned taking them into consideration. This is the only possible way for programmes to meet the real needs of disadvantaged children. Such approaches would also help to define pre-school goals with further objectivity. According to Blank (1976), studies of different cultures are also relevant to understanding the mother-child interaction since they offer an opportunity to observe the effects of widely differing child-rearing practices. An adequate understanding of the characteristics of children coming from different cultures would undoubtedly lead to programmes that are more relevant to individuals.

CHAPTER 2: THE PRESENT STUDY

For a long time pre-school education for socially and culturally disadvantaged children has been implemented as a palliative for poverty. Despite the fact that the idea behind pre-school education has remained the same, the reasons for implementing the programmes have changed. Charity gave rise to the formation of pre-schools before the 1960s and later the rationale behind them was orientated more towards providing equal opportunities for all children. These changes can be thought of as a consequence of social and political events and also because of the developments in the educational and behavioural field.

Only as recently as the 1950s was it realised that the environment in which the children were brought up had a strong influence on their development (Jensen, 1968). Consequently, greater importance was attached to early education (Denison, 1978). The need for pre-school provision for socially deprived children is widespread. Although awareness of the problem is universal, there are discrepancies as to the causes of social deprivation, of behaviour and manifestations during the early years and its consequences in later schooling (Rutter & Madge, 1976). Also there seem to be diverse opinions as to the most appropriate ways of implementing the pre-school programmes (Chazan, 1978). It seems that no real consideration has been given to the characteristics and needs of working-class children. For example, among others, Bernstein & Young, (1967) and Tizard et al. (1976) have provided information indicating social class differences in play; working-class children are bound to play more outdoors and also if given the chance choosing toys like wheeled vehicles. In the usual free play environments children find they have access to whatever material they wish to play with and

freedom to go into playgrounds whenever they wish. Also, outdoors, staff tend to behave in ways which are less conducive to learning (e.g. less interaction is observed between adult and child and more negative commands are given). Left free, working-class children appear to prefer outdoor play. The lack of consideration of the characteristics of the working-class children and their needs has led to many people labelling several of the programmes as "paper programmes" (Halsey, 1972). Although these programmes have come in for some criticism, it must be accepted that in several respects they have been beneficial. They have made pre-school places available to many more children than ever before and further insight has been gained into the problems and possibilities associated with them.

Fairly recently, researchers have begun to study the characteristics of working-class families (Tizard et al., 1980). Prior to this research such families had been labelled as unconducive to children's learning. Now that a more thorough analysis is taking place, the real influence of the home on the children is being reconsidered. This has also led to further questioning the way programmes were devised. One of the main issues which has been discussed is the advantage of the traditional free-play method (Woodhead, 1979). Although this method might be described as quite adequate for middle-class children and their parents, this does not seem to be the case for the more socially deprived groups (Midwinter, 1975). One of the main aims of pre-school programmes has been that of improving language development. Research carried out in this field has revealed that because of the methods used those children who are in most need of attention are not in fact receiving it. Different explanations have been given to these findings and among the most frequently cited are those of the unfamiliarity of the settings, the staff's behaviour and the curriculum. As a consequence of all this,

middle-class children are benefiting more than working-class ones (Woodhead, 1979). In fact, the present pre-school provision serves to widen the class gap even more.

There is currently considerable research being carried out into all the aspects discussed above. The aim of this is to discover how best to adapt the present pre-school methods to suit the needs of working-class children and their families. Repeatedly suggested as a means of improvement has been the inclusion of mothers into the pre-school settings. This idea goes back as far as the Head Start programmes which came into being in the 1960s. Since then some schools have included mothers to a greater or lesser degree. Despite the particular interest in this aspect, no research in the manner of the present study has been carried out into the effect the mothers produce by their presence.

It is thought that if mothers are included, several of the problems found by working-class children could be more effectively solved. Researchers (e.g. Tizard, J., 1975; Evans, 1975; Woodhead, 1979) regard the mothers' involvement as a possible link between the experiences found by these children at home and at school. Other reasons given for the importance of involving mothers are described. If teachers readily accept mothers and assign them specific roles, each child will receive more individual attention. Direct and individual attention has been suggested (Blank, 1973) as that required by disadvantaged children. Also if mothers are involved as para-professionals it could mean far more pre-school places. Researchers have found that many working-class mothers do not consider themselves as instrumental in their children's education. By allowing them to become actively involved in the pre-school could improve their opinion of themselves in this respect. J. Tizard (1972) points out that a movement towards mothers' involvement

could stimulate parents of different sub-cultures to join the school and this would be beneficial to both the mothers and the children. This could be of even more significance if it encouraged mothers of different cultural and ethnic backgrounds. It could assist mothers in overcoming their feelings of ethnic discrimination (Honig, 1972), and also give support to the children of immigrant families (Woodhead, 1979). It has been noted that the more involved that parents become, the more their self-esteem improves (Nedler & McAfee, 1979; Evans, 1975). It is widely felt that only programmes which include parents during the early years of education are destined for success (Bronfenbrenner, 1975).

The present research was carried out with the aim of gaining a further understanding of the role that mothers can have when involved in the pre-school. The interest was geared towards studying the deployment of working-class mothers. For this reason, it was carried out in two different pre-school settings located in socially deprived areas. The group investigated included mothers from disadvantaged backgrounds. The study was purposely designed to concentrate on this social level because as yet the behaviour of working-class mothers in these settings has not been fully explored.

Mothers' behaviour as para-professionals was examined in the hope that the information it provides will enable a more relevant assessment of this method as an alternative to the more traditional approaches in pre-schools. It was aimed at discerning how mothers differed from the staff who are normally present in these settings. The study to be described was concerned with gaining information on all the happenings within the classrooms. At this stage it was felt important to study the mothers as a group and also to analyse how their individual characteristics affected their behaviour.

Comparisons were made of the amount of time each of the three groups

(mothers, teachers and nursery nurses) spent involved in different activities, i.e. the "child" and "non child" centred activities and also the time spent wandering in the room without becoming involved at all. The adults studied were observed in five different conditions: teachers alone, teachers with mothers, mothers alone, mothers with teachers and nursery nurses. Teachers and nursery nurses were included as separate conditions in order to compare and contrast their behaviours with that of mothers. Mothers alone were observed for this same purpose. In the two conditions in which adults were observed with the other of the pair present, i.e. teachers with mothers and mothers with teachers, the aim was to discover to what extent the presence of one affected the other.

In pre-schools located in socially deprived areas, it is rare for mothers to be involved directly in the settings and so it was considered important to investigate the effect of their presence on the "Own" child. To this end, the amount of attention received by the child from the teacher when the mother was present and when she was absent was analysed. This comprised the second focus of the analysis.

P A R T 11: T H E M E T H O D

CHAPTER 3: NATURALISTIC OBSERVATION

1. The Use of Naturalistic Observation as a Method

This is a study in which naturalistic observation has been used in order to observe the day-to-day flow of events in a sample of pre-school classes. In line with other studies in pre-schools, and for other reasons, naturalistic observation, despite some of its limitations, seemed to be the most obvious method to use. This chapter discusses some of the major issues in the use of naturalistic observation and describes how some of them were resolved in this study. Other methodological problems relevant to this study are considered in later chapters. Data obtained by direct observation are expected to reflect naturally occurring behaviour and are likely to be considered with more confidence as they become more naturalistic in character (Wenar, 1965). The literature indicates that such data often tend to be very persuasive. However, a critical review of naturalistic data reveals that certain issues have to be taken into account in order to obtain accurate results (Blurton-Jones, 1972).

1.1. Naturalistic Observation versus Other Techniques used in this Field

Jones et al. (1975) and Thorpe (1979) amongst others, have argued that that naturalistic observation has been a fairly common method used in other disciplines, notably, ethology, zoology and anthropology. In psychology this has not been the case, at least until fairly recently. In the other disciplines data are collected in very idiosyncratic ways (Matheson, 1978) whilst in psychology the goal is to study subjects in

such a way that the use of statistical analyses would be possible. Johnson & Bolstad (1973) have argued that observation might have been introduced into psychology as a useful supplementary instrument to the most traditional methods after the behaviour therapy boom of the 1960s and 1970s. Mitchell (1979) points out that observational methods in natural and quasi-natural settings are increasingly replacing other methods (such as tests), in developmental and educational psychology. According to her, one-third of the recently published articles in the field of developmental psychology have used this method.

Studies of child development, including mother-child and teacher-child interaction, have relied heavily on indirect methods, which appeared to be highly fallible. For instance, information was usually obtained from mothers and proved to be distorted (Newson & Newson, 1968). This problem has also been described in teacher-child studies (Rosenthal, 1970).

Problems related to the use of naturalistic observation have also been described and although a full discussion on them is beyond the scope of this study, some points considered relevant will be dealt with.

Despite the problems which have been raised, observational studies involving children are more reliable than those using questionnaires or interviews (Schaffer, 1978) and according to Hinde (1976), the description of what is observed may form a basis for greater understanding of the dynamics of relationships.

1.2. The Problem of Observee Reactivity

The problem of observee reactivity has been raised, amongst others, by White (1972), Webb (1966), Weick (1968) and Johnson & Bolstad (1973).

Opinions vary as to the causes of modification in subjects' behaviour but some research workers claim that merely concealing the motive

behind the observation is sufficient to ensure reliable results (Moss, 1967; Richards & Bernal, 1972).

In order to avoid problems raised by the presence of an outsider, different alternatives have been tried out, such as using a long pilot stage (Johnson & Bolstad, 1973), or allowing a sufficient amount of time to elapse before research data are collected (Webb et al., 1966).

Hughes et al. (1980) mention that it has been suggested that the effect of the observer will be more pronounced in early visits. They do not believe that this is so, and it may be that some reactions to the observer will never habituate. No significant differences have been found by others in behaviour over as many as six, seven or ten visits (Johnson & Bolstad, 1973). Riley (1963) suggests that the influence of the observer ought to be reduced by the observer assuming an incognito role. Other solutions have been suggested such as the use of multiple observers. In this respect, it could be argued that, although using more than one observer simultaneously could to a certain extent improve the quality of the observation in terms of its accuracy and reliability when the behaviours which take place are very complex, it would, on the other hand, make the observation less economical and could perhaps slow down the habituation process.

In order to reduce as much as possible the effect of the observer in the present study visits to the different classrooms started some time before the definitive stage of data collection commenced. At the same time, the observer was passive to all occurring events. Further, once the best spot from which to carry out observation had been decided upon, it was retained as a permanent position in order to avoid suspicion on what and/or to whom was being recorded. It was chosen according to the following criteria: it had to be located in a place which neither adults nor children would need to approach very frequently, while at the same

time it had to be a place from which the classroom could be easily observed. Finally, neither adults nor children were told that they were being observed, although teachers knew that mothers and their children were under observation. The ethics of this approach are obviously open to question. However, strict attempts have been made to protect the identity of all concerned. With complete awareness that this approach could be considered unethical, the observer nevertheless used it in the knowledge that if the real objects of observation had been revealed, the research would have been prohibited. Even if it had been possible to disclose the subjects under study, it could have been expected that the adults would have modified their behaviour accordingly. No research has been carried out yet in this particular area and because of the relevance of para-professional involvement, the observer thought that despite the above-mentioned problem it was worthy of investigation.

1.3. Time Sampling

Observations are usually collected over several time periods, under naturally occurring, and hence varying environmental conditions. Often the conditions under which observational data are obtained may be so obviously non-equivalent across different subjects, or even for the same ones, the resultant behavioural scores are unlikely to be comparable measures. Therefore, time contributes a source of measurement variance unique to naturalistic observation (Holtzman, 1963). For Jones et al. (1975) systematic fluctuations of behaviour as a function of time have implications for psychological measurement procedures. Webb et al. (1966) argue that it is possible to use an opportunistic sampling of important phenomena but the data gathered are atypical. In such cases no generalisations can be made.

In studying children Hughes et al. (1980) have mentioned that the behaviour of both mothers and children varies systematically throughout the day, and there is always the risk of collecting 'atypical' data by recording at one time rather than another. For example, in a study they did, although the differences they found were not significant, most talk tended to occur over the mid-day meal period, whereas most play was found to occur in the afternoon. Webb et al. (1966) argue that sampling time units have been widely used in nursery-school settings because of the greater periodicity of children's behaviour.

In relation to adults, the problem of behaviour changes has also been studied. In a research carried out by Tizard et al. (1976a) they found no consistent differences in staff behaviour during morning or afternoon sessions.

1.4. Time Sampling versus Other Techniques

In observational studies, different methods have been used to collect data. Terms used to describe these methods have been used in various ways (Repp et al., 1976). As indicated in the literature, because of technical problems sampling techniques have been preferred. Smith & Connolly (1972) argue that these techniques have certain advantages. For instance, they allow a comparison between behavioural frequency, objectively defined, for different subjects and in different settings. It does not lend itself to the detailed sequential studies of behaviour in specific situations reported by the ethologists (McGrew, 1972; Blurton-Jones, 1972) but it allows a considerable advance in the objectivity and comparability of the results over diary records and other rating methods (Clarke-Stewart, 1973).

Jones et al. (1975) argue that while time sampling adequately covers

the temporal or sequential order of the behavioural events it does not represent the behaviour in real time. This means that the duration of events cannot be recorded in real time without expensive electronic equipment. Continuous recording procedures do not have this problem but create others, especially when only one observer is used. Events may occur while the observer is taking notes on the previous behaviours and information would, therefore, also be lost.

Repp et al. (1976) carried out an experiment in which they compared data obtained by different methods of data collection. As the interval method is the one used in this study, only results obtained with it will be mentioned here. This method was found to be inaccurate for high-rate responding and may underestimate the occurrence of high-rate events. However, when interval recording is used to record with small intervals, it is capable of selecting most responses which occur at moderate or low rates. A similar finding is reported by Powel et al. (1975).

Thompson et al. (1974) found that when comparing different time sampling methods (contiguous, alternating and sequential) using only one observer, the sequential was associated with the smallest percentage error. The explanation given is that it captures the most widely dispersed sample of the entire observation period.

1.5. Reliability and Accuracy

Observational studies are being used with much greater frequency now than previously, basically in developmental and educational psychology, but also by some researchers in clinical psychology (Jones et al., 1975; Patterson et al., 1970). However, it has been pointed out that due to its inherent characteristics, it can easily become biased if not properly implemented. It has been suggested that when observational

procedures are employed, several measures ought to be taken into account in order to make the information gathered more accurate, reliable, objective and thus better. Measures like evaluations of the similarity of simultaneous judgements should generally be obtained from pairs of observers, i.e. using reliability measures.

Reliability has been largely discussed in more traditional methods such as tests, whereas in observational methods it has not received so much attention (Johnson & Bolstad, 1973). Recent discussions on the reliability of naturalistic observation data indicate that more research is needed to make it a better method. The biases found are generally regarded as coming from two possible sources: the subjects under observation and the way in which data are collected, scored, analysed and interpreted. Hollenbeck (1978) argues that the issues surrounding reliability in observational studies comprise a series of inter-related problems. Some of these will be mentioned.

According to O'Leary & Kent (1973), although high levels of agreement between observers may be obtained this does not eliminate the possibility of biases in recording shared by observers; many factors have been found to interfere with the recording process. For Johnson & Bolstad (1973) the problem of reaching agreement between observers is to a large extent determined by the kind of setting in which the observation is carried out. They have found that reaching good observer agreement is more difficult in naturalistic settings such as the home or other confined quarters. Lytton (1973) found differences in inter-observer agreement when comparing different settings. The same level of agreement between observers could be reached in home and laboratory settings, although different amounts of time are needed. Kent et al. (1977) suggest that assessment must be performed continuously and be

supervised by an experimenter. For them, systematic rotations of all observers across all experimental conditions would ensure that differences in recordings between groups of observers do not exaggerate or mask actual treatment effects. If consistent reliability checks of observers with a stable criterion are not used throughout data collection, recordings at different points in time may not be comparable. According to Kent et al. (1977) several recent findings have pointed out that there are good grounds for suggesting a thorough review of observer training and observation-code development.

Reliability measures have been found to be consistently and substantially inflated by knowledge that it is being assessed (Romanczyk et al., 1973). According to Scott (1967), different levels of observer agreement have been reached when comparing "informed" and "uninformed" observers, the levels being higher for the latter. Differences have also been found between trained and untrained observers. Scott (1967) has noted that even recordings of trained observers may be influenced by expectations. Kent et al. (1977) suggest that accurate definitions would help resolve difficulties found when having multiple or variable interpretations.

Differences have been found between research work using few and large numbers of categories. More inter-observer agreement is reached when using fewer categories (Mitchell, 1979).

Another aspect described by Hollenbeck (1978) is that of "complexity". This derives from the possibility of using two scoring systems: molar and molecular. By this, he means the relative number of coding categories and the distribution of behaviours over these categories during a standard observation period. The problem of complexity is a pivotal concept for Hollenbeck (1978) affecting reliability of observational measurement and has not been fully explored. Differences have also been

found when studying behaviours which occur with different frequency. Probabilities for agreement are greater for those of very low or very high frequency (Hollenbeck, 1978). In a different, but closely related aspect Taplin & Reid (1973) argue that observer accuracy decreases depending on whether the agreement was based on data collected at the beginning or at the end of the data collection stage.

The complexity of behaviour has also been referred to as a source of possible distraction in the process of data gathering. Jones et al. (1975) found data indicating that the inter-observer reliability is not a stable characteristic of observational data, but changes as a function of the complexity of the behaviour recorded. They found complexity varied systematically within subjects over time, between subjects and between specific types of observational situations.

Another factor described by researchers as influencing the inter-observer agreement (Repp et al., 1976) is the interval size. As the interval size increases the agreement percentage tends to decrease. If the number of responses recorded by each observer in an interval increases, the opportunity for disagreement is augmented.

Repp et al. (1976) point out that different levels of inter-observer agreement can be reached also as a function of the method of computation. The Exact Agreement method (which they point out is more conservative) could be the most appropriate one to use when the observers are recording multiple responses per unit of time and are only using paper and pencil to record.

According to Hollenbeck (1978) most of the authors who have worked with observational measurement have dealt with the problem of reliability, but have understood it in different ways. He does not find all these ways adequate or complete. Measures most frequently used do not take into consideration differences between the diverse aspects

which conform these measures and which can lead to further misunderstandings. Reliability is a complex measurement which encompasses at the same time accuracy, stability and the conditions under which observations are made (Hollenbeck, 1978).

Amongst others Hollenbeck (1978), Mitchell (1979), Jones et al. (1975) and Kent et al. (1977) have argued that there are several methods which could be used in studying reliability and that the one which has been most frequently used is the inter-observer agreement percentage, followed by the inter-observer correlation coefficient. Mitchell (1979) argues that the inter-observer agreement percentage only gives information on the agreement between two observers in terms of the recording of a behaviour. This method has, according to her, several shortcomings such as that it is insensitive to degrees of measurement because it is an all-or-nothing phenomenon and as such it may well underestimate the agreements.

A number of researchers (e.g. Mitchell, 1979) suggest the use of "Generalisability" models in order to encompass all the different ways in which reliability has traditionally been measured when used in psychometrics. It gives a unified approach for assessing the influence on measurement precision due to similar instruments (parallel forms), temporal stability (test-retest) and different assessors (inter-observer agreement).

2. General Conclusions

For a long time, research in the developmental field relied heavily on methods other than observation; whereas today it is gathered through direct methods. Although many investigators are uneasy about the accuracy, validity and reliability of observation, this approach has

been used increasingly in recent years. Methodological studies acknowledge the advantages and are raising possible ways to overcome the limitations which still exist.

Despite the limitations which have been described, there is concern regarding its advantages compared with other methods which were used until the "1960 behaviouristic boom" took place. One of the advantages which has been most generally pointed out regarding observation is the impartiality of the data which it can produce compared with other methods in this field.

Researchers have some reservations about this problem of impartiality. They are based on the argument that information gathered in this way is bound to reflect the underlying theoretical assumption of the observer (Newson, 1977; Lytton, 1976). According to Newson it would be ideal if these conceptions were made clear. In this respect Lytton (1976) has argued that no observation on behaviours is really 'atheoretical'. For him the underlying theoretical assumptions of the researcher affect the selection of behaviours to be studied as well as the codings. He argues that when a study is interested in looking for functions and contents of an act "rather than in its minute external definition" this study becomes different from an ethological one and as such it loses its 'atheoretical' approach.

The position taken in this research is in accordance with the above-mentioned one. Considering that it is very difficult to reach an 'atheoretical' position, this method appears to rely less on the underlying assumptions related to others. Various pieces of research indicate that more accurate, reliable and thus better information can be obtained using observation than more indirect methods. This view is held despite the awareness that behaviours are to some extent altered by the observer's presence.

The point of view held in the present study is that better information could be obtained if other methods were considered as complementary or explanatory to that of observation. This is thought to be of special importance in order to gain a further understanding of the complexity of human behaviour.

Furthermore, observation is bound to be affected by extraneous variables and if the researcher wants to go beyond the descriptive stage and into the hypothesis testing one, ways of controlling these interfering variables should be considered.

Finally, perhaps only by the combination of several methods which can emerge from other scientific fields, can better knowledge be attained. As has been said (Blurton-Jones, 1976; Richards & Bernal, 1972) a multi-level approach ought to be used which ranges from the sociological to the biological before a fair understanding of behaviour can really be reached.

In the case of the present study the method used was laborious and time-consuming. It is thought that by further developments in the technical field not only will similar work become more accurate and more reliable, but also more aspects will be covered in less time and in this way a more complete picture of the behaviour can be reached.

The settings were not devised specially for this research; on the contrary, the observation took place in settings in which the subjects found themselves involved regularly. The subjects would have gone through each of the different conditions investigated even if the observer had not been there. This was done because the purpose of this study was to take a naturalistic approach in which it would be possible to combine both the observation of a 'natural' behaviour with the possibility of carrying out the observation in a 'natural' setting. In this respect, Tunnell (1977) has argued that "natural behaviour is merely recorded in natural settings".

When studies are carried out by observing naturally occurring behaviours without forcing them into experimental conditions, the control with which data can be collected is sacrificed to a great extent. In this context, the contrivance that experimental studies impose on the naturalness of the phenomena to be studied is to a large extent reversed. This means that when observational methods are used the conditions imposed upon the researcher, the conditions under which the observation takes place and the subjects under observation are dependent on the characteristics proper to the behaviour or setting under study. Some limitations are bound to emerge in conditions such as this. Some of the ways in which they were coped with in this study have been mentioned. Others are referred to when the method is detailed in the following chapter.

CHAPTER 4: THE METHOD USED IN THE PRESENT STUDY

1. Presentation of the Method Used

1.1. Design of the Study

A quasi experimental design (Campbell & Stanley, 1966; Matheson, 1978) was used in which mothers, teachers and nursery nurses were to be studied in relation to the time each of them spent involved in the different activities within the classroom setting.

The investigation was designed to study the activities of the adults as well as the language they used. Although this had been the aim, soon after the commencement of the pilot stage the idea had to be dropped. This was due to methodological and technical problems. It was not possible to collect data on language due to the prevailing conditions of the settings. On one hand, the high level of noise present in them made the recording very difficult. On the other, because all subjects were unaware of the goal of the study it was not possible to follow them. Therefore, although activities could be seen, language could not always be heard. One observer did the data collection. This meant that the conversations could only be heard when held quite close to the spot from which the observation was done. Other researchers (Tizard et al., 1976_b) have indicated the problems which arise in free-flowing settings when using technical devices.

The centres selected in this study were those which complied with the following characteristics: they had to be located in deprived catchment areas, they had to be staffed by nursery trained teachers, run by educational authorities and pursue educational aims through the medium of free-play. Most important of all was that they had to have mothers who

were directly involved working in the classroom and who had no further training other than secondary education: nor were they expected to receive any salary for their work. Two schools with a total of six classes were found to comply with these requirements.

1.1.1. Selection of the Centres

Preliminary visits were made to a large number of schools and nurseries in a geographically convenient area which had said, either by letter or phone that they did in fact have mothers working in this capacity. In all but the two studied, once the researcher arrived, it was very soon quite obvious that although some of the centres have mothers coming in, their involvement was discovered to be in activities other than those involving contact with the children, e.g. tidying up, washing up and working in the kitchen.

Given that mothers are involved in a large number of schools, it was somewhat surprising to discover that in all but two, mothers were involved in such a limited way. In order to investigate this observation further, a questionnaire was sent out subsequently to a large sample of schools (the format and results of which are presented in Appendix No. V, page 293) in order to determine to what extent mothers were involved in schools and nurseries, using 'involvement' in the sense described in this study. This survey covered a very much wider area in South East England and the results confirmed that when mothers are involved, only limited involvement is found.

The two centres selected were similar with respect to important variables, such as staff-child ratio, amount and variety of play equipment, daily programmes, and familial characteristics of the children. Although the general ideology was said to be the same in both centres,

some differences did arise; in one of the schools staff tended to be more authoritarian than those in the other. Both schools were open all day, although according to their age, children attended either for the morning, or for the afternoon or for the full session. The younger ones were there for only one session per day.

According to the headteachers' information, preference was given whenever possible to children from one-parent families, disturbed and/or immigrant families. In both cases, headteachers said that they had tried to keep some sort of balance between what they called "normal" and "problem" children so that centres would not become overloaded with children who would be hard to work with. The staff:child ratio varied between 1:10 in some classes to 11:11 in others. This has meant that only few subjects could be studied. Although this clearly affects the generalisations which can be made of the findings it did not really affect the aim of the study. It has been pointed out by several researchers (e.g. Schaffer, 1977) that the greater the detail of the observation, the fewer the subjects who can be studied adequately.

The scope of the study is shown in Table 1.

TABLE 1: THE SCOPE OF THE STUDY

	Teachers Alone	Teachers with Mothers	Mothers Alone	Mothers with Teachers	Nursery Nurses
School 1	5	15	13	15	8
School 2	4	3	1	3	-
Total	9	18	14	18	8

1.1.2. The Pre-School Setting

In both pre-schools a great variety of play equipment was set out and the children could play with what they chose for as long as they wished.

All classrooms opened into a garden and for most sessions, weather permitting, the children could play inside or outside as preferred. A member of staff and/or a mother might initiate activities, e.g. collage-making, painting on easels, cooking, or might read aloud and the children could participate or not as they wished. The only limitation on the child's choice was a daily organised story time in all classrooms in which the study was carried out. In one of the schools the reading session took place at the end of the morning and in the other, it occurred during the mid-morning activities.

The classes had a group of approximately 30 children. Some of them attended for the morning, some for the afternoon and some all day. The age range in both schools was from 3 to 5 years. In both schools the classes consisted of children of different ages - "family group" (Evans, 1975). One of the schools had two classes of approximately 30 children each in the care of one nursery-trained teacher and two nursery-trained assistants and one or two student assistants. The second school had four classes of approximately the same number of children and staff as the one described above, with the staff distributed in the same way. Both schools had only one mother helping at any one time in the classroom. In all classes, the time-table was set up independently of the mothers and they had to fit in according to this pre-arranged time-table. The distribution of children attending the classes according to sex and racial origin is shown in the Appendix (Appendix No. I, page 224).

1.1.3. Subject of the Study

- Pre-school centres

The criteria for the selection of the pre-school centres in which the study was to be carried out had been set in advance and were determined on a priori basis. These requirements derived from the aims of the present research. The two centres which were found to comply with the needs of the study were those in which headteachers were interested in having mothers involved in the classroom and have them working in close contact with the children. It was found that in the two centres in which the observations took place, headteachers had been positively disposed towards the acceptance of this type of mothers' involvement. This comment is based on observations at the time of the researcher's first visit, when one or more mothers were found working with the children in some of the classes.

Both headteachers showed interest in the study being carried out, and proceeded spontaneously to invite mothers who they thought could come and as they stated, be 'adequate', or else they asked the teachers to select some mothers using the same criteria and invite them to work on a sort of rota basis.

- The Mothers

Some conditions were imposed by the researcher on the selection of mothers. These were as follows: mothers had to be involved working on a voluntary basis, they had to be located as helpers in the same room as their "Own" child and they should not have had any further training apart from secondary education. All mothers who satisfied these criteria were white and had been born in England. One had been divorced recently, but all the others were from two-parent families.

The social class distribution of mothers is shown in the Appendix

(See Appendix No. I, page 225). The classification of social class followed the Registrar General's Classification of Occupations (1970). A detailed account of mothers' education, occupation and a general description of their behaviour is included in the Appendix (see Appendix No. II, page 227).

- The Teachers

The group of teachers who took part in the study were those who had one or more mothers working as helpers within their classroom. They were all nursery-trained teachers. All of the teachers were white and had been born in England.

- The Nursery Nurses

The nursery nurses observed were those who were routinely involved working in the same classrooms in which the observations took place. The nursery nurses were all white and English by birth. All but one of them had had nursery-assistants training (i.e. N.N.E.B.).

- The Children

The characteristics of those children whose mothers were involved as helpers are shown in Table 2.

TABLE 2: "OWN" CHILD'S CHARACTERISTICS

("Own" Child underlined>)

"Own" Child	Date of Birth	Birth Order
Mrs. Parsons Phillip	12. 8.72	M > <u>M</u>
Mrs. Evans Steven	8. 3.72	Only Child
Mrs. Richardson Paul	24. 5 73	Only Child
Mrs. Dennis Johnny	5.10.72	F > <u>M</u>
Mrs. Watson Darren	19. 6.72	<u>M</u> > F
Mrs. Hunt Jayne	20. 4.73	Only Child
Mrs. James Simon	19. 6.72	Only Child
Mrs. Collins Michael	15. 4.72	M M > <u>M</u>
Mrs. Giles Mark	6. 3.72	F > <u>M</u>
Mrs. Miller Adrian	13. 3.72	Only Child
Mrs. Cook Catherine	9. 5.72	F F F > <u>F</u>
Mrs. Brown Christopher	15. 6.73	F > <u>M</u>
Mrs. Norris Greg	31.12.73	M > <u>M</u>
Mrs. Kirby Susan	6.12.73	M > <u>F</u>
Mrs. Jackson Dean	25.12.73	<u>M</u> > F
Mrs. Thomas Keith	17. 5.72	M > <u>M</u>

1.1.4. Explanation given to Adults on the Goal of the Study

Headteachers, teachers, nursery nurses and mothers were told that the aim of the study was to investigate the extent to which the "Own" child's behaviour in his everyday activities in the pre-school centre was affected by the presence of the mother in the room. This was done in order to avoid possible interferences in the adults' natural behaviour due to the presence of the observer, and to obtain as natural a setting as possible. This, of course, imposes several restrictions on the study. One of the important consequences of this sort of methodology was that the total observation time for each of the subjects depended on conditions other than ones within the observer's control. Whilst the present approach has the advantage of reducing the obtrusiveness of the research, it limits the amount of control which can be exercised by the researcher. The way in which this problem was faced will be discussed in the following section.

Table 3 indicates the amount of data collected on each adult. It can be seen that the amounts varied widely, due to the fact that it was necessary to collect as much data as possible whilst a mother, teacher or nursery nurse was available. At no point could it be known in advance how much could be collected for any one subject without increasing the extent of intrusion.

1.2. Data Collection

1.2.1. Method Used in Data Collection

The naturalistic method of observation was used in order to analyse the way in which the subjects of the study spent their time involved in different activities. The observation was carried out systematically so as to enable an ordered registration of occurring activities. Due to the aim of the study and the method used, at no point could the research design be systematically contrived, apart from its fundamental aspects. No degree of control was imposed during the study on any of the subjects.

During the pilot stage it was observed that within each of the observation units defined for the study, one or more than one activity could occur either simultaneously or sequentially within each unit of time. In order to set out data in such a way that further analysis could be carried out, activities within each unit were grouped into one, two and three or more activities per unit. At no point in the observation was consideration given to the duration of each of the activities occurring within each unit. This was due, basically to the fact that observation was carried out without interruption for the first ten seconds of every minute. Jones et al. (1975) have pointed out that with this procedure it is not possible to take into account the duration of each of the activities occurring within that time. This is so even when activities occur independently of one another and in a sequential form. In this case naturalistic observation was of the kind in which a number of subjects were observed over time and under varying conditions. In order to follow events as they occurred naturally, the order in which observations were made depended on the way in which the teachers had set out their everyday activities.

1.2.2. Observation Procedures

The same observer made all the observation recordings. This observer assessed the adults' activities within the classroom setting using time-sampling. Recordings were made of all events occurring in the interval and notes were made on specially designed sheets.

A manual stop-watch was used throughout all the observations. The stop-watch was kept out of view of the children as well as the adults, as much as possible. At no time did it appear to be of interest to any of the subjects. This lack of reaction has been noted in similar studies (Hughes et al., 1978).

As complete a record as possible was made of what was said and done by the member of staff in the first ten seconds of every minute, also to whom she spoke or directed her activity. At the end of five minutes these observations were coded. Sometimes, it was necessary to observe before and after the ten second period in order to code adults activities and to determine exactly what activity was taking place.

1.2.3. Periods of Observation

Observations were only made at times when the activities being held were those in which all three different groups of adults could at some time or other participate normally. For this reason, as mothers were never left in charge of the outdoor activities or the "story time", these periods were not considered as part of the study.

No observations carried out at times when, as the observer had realised during the pilot stage, the events which occurred were exceptional in terms of either the adults' or the child's behaviour, i.e. observations were not held during the periods in which mothers came to leave or collect their children or when medical or dental examination

took place. This approach is similar to that adopted in other studies (Blurton-Jones, 1972; Leach, 1972; Tizard et al., 1976a).

1.2.4. Recording Times

Observation time was determined by the way in which teachers set up their activities. This was to avoid any suspicion on the part of the teachers about the observer and the goal of the research. Of course, this was within the limits which regular observation imposes on the environment or subjects being studied (Wess et al., 1966).

As such the different aspects to be observed were set with as much care and consideration as possible. The procedure of implementation and the way in which times and places of observation were chosen are described below.

The Classroom

The class to be observed was chosen according to whether or not the mothers were to be present. This was done so that the teachers did not feel that they were being observed. Also, observation did take place at times when the "Own" child had left the room or was involved playing outdoors.

The Teacher

On several occasions mothers did not arrive and if it was possible then the observer remained in that room in order to observe the teacher. This was only done when the teachers did not insinuate, sometimes very indirectly, that they felt the observation should be concluded. The other times when the teachers were observed on their own in the room were when the mothers were out, for example for their coffee breaks.

The Mothers

With the mothers the same procedures were used and they were observed on their own in the room when the teachers went out incidentally, were having their coffee breaks or were in charge of the outdoor activities.

The Nursery Nurses

Nursery nurses were observed, on the one hand when the mothers were not present and, on the other when teachers were for some reason, although within the classroom, out of sight of the observer for some time longer than just incidental periods, e.g. be in the classroom but involved working with one child only for a reading or writing exercise in the quiet room and for that reason be beyond the observer's range of vision.

Mothers with Teachers

When mother and teacher were present observation time alternated from mother with teacher to teacher with mother. This was done in five minute periods.

1.3. Data Coding

The pilot study enabled the observer to become familiar with the flow of activities within the setting. During this stage note was taken of all occurring events. Some of these preliminary visits are described in the Appendix (see Appendix No.III,page 261). It was thought that making these visits was an acceptable approach to learning ways of handling specific technical problems. At the same time this was a way of becoming more aware of the idiosyncratic methodological characteristics of such studies, and it enabled both adults and children to become used to the presence of the observer. It further assisted in devising

the most appropriate coding schemes. Therefore, after the pilot stage was completed a set of observation categories was arrived at. Despite the fact that the categories were prepared independently from any other research carried out in this area, they turned out to be quite similar to other lists which have been prepared by researchers who have also been studying the involvement of staff in pre-school settings (Tizard et al., 1976a).

1.3.1. Selecting Behaviours to be Coded

The intention of the pilot stage was to capture the natural flow of all activities and interactions. This was with the goal of enabling the observer to become accustomed to the usual happenings within the pre-school settings. No predetermined categories were used so that the observer had freedom to observe the events which took place. Mothers, teachers and nursery nurses were observed during this stage and note was taken, as far as possible, of all they did. This was with the purpose of obtaining specific guidelines for the procedure to be used for the final recordings. It was also to enable the observer to distinguish which behaviours would be relevant to the aim of the study. In addition, it helped to determine those activities in which all three groups participated, thus allowing a comparison between individuals and groups to be made. There are advantages in devising categories before the commencement of the final recording stage. This would help minimise the errors due to differential sensitivity and evaluative biases. It also allows a more precise coding.

After the preliminary visits, all the observational material which had been collected was translated into categories of observable events. It took the present researcher a long time to determine suitable categories.

These categories have also been chosen so that they would be easy to observe with some accuracy by other observers. It has been pointed out that focussing on elements which are too fine may lead to observers being less reliable. Categories which are too gross also lead to problems because it becomes difficult to avoid overlap of categories (Johnson & Bolstad, 1973). See discussion of reliability (Section 1.5., Chapter 3) to assess the extent to which the codes facilitated observer agreement.

The observation categories are described briefly in this chapter. They are presented in detail in the Appendix (see Appendix No.IV, page 282). They deal with two major types of activities: activities in which there is contact between adults and children and those activities in which no contact with children occurs. A third set of categories is concerned with the behaviour of the adults when no involvement takes place. In addition, note was taken of the style of the interaction held with children.

Activities in which contact with children was observed included:

a) contact in which a direct interaction between adult and child was observed - working, playing or being involved in social interaction like conversing or being in some sort of physical contact and b) indirect contact, in which a more impersonal interaction is observed between adults and children - general supervision or attending to chores.

Activities in which no interaction with children is observed included:

a) dealing with equipment, b) doing housework, c) interacting with other adults present in the room.

When considering the style of the interaction, the interest was centred on the way in which the adults directed their attention towards the children. It was the interest of this study to record interactions

either verbally or in terms of physical contact which were of a negative character. All of those which were not coded as negative were categorised as positive. Describing qualitative interactions as 'positive' does not necessarily mean that they were of a special positive nature.

The moment adults changed from one activity to another, these were coded differently. In the case of the child-centred ones, the activity was considered to be ended by a change of subject or when the child or adult moved away, although the activity could remain unaltered.

In the case of multiple behaviours a priority coding was used. It is similar to that used by Jones et al. (1975). They employed a priority criterion to guide observers as to which of the behaviours to code. Jones et al. (1975) point out that this is a useful technique when the goal is to record all behaviours as they occur, but to do so using a manageable number of behavioural categories. In the case of the present study, the priority criteria used placed emphasis on activities which were thought to be of more importance in meeting the aims of pre-school education, i.e. priority was given to those in which more direct interaction was held between child and adult. This criterion was used when coding styles of interaction. As an example, within one unit of time the following activities occurred:

Recording: Teacher talks to mother; teacher washes up beakers;
teacher picks up crying girl (white).

In the above example, priority was given to the activity underlined.

All activities were coded without considering their duration within each unit of time.

The procedure for coding the activities is shown below. The abbreviations used are explained in the section on KEYS in page 319.

The underlining corresponds to the activity which was given priority and thus coded.

For each unit of observation time, three possibilities might be encountered:

a) if one activity is recorded in one unit of time, it would be coded directly according to its content,

b) if two activities co-occur sequentially or simultaneously in one unit of time, the procedure used is:

b) 1. If one activity is related to children (child-centred activity):

- | | |
|---------------------------|---|
| <u>1DC+</u> ; 1DC+ | (1 Direct Contact; 1 Direct Contact) |
| <u>1DC+</u> ; 1IC | (1 Direct Contact; 1 Indirect Contact) |
| <u>1IC</u> ; 1IC | (1 Indirect Contact; 1 Indirect Contact) |
| <u>1IC</u> ; 1Non Ch.Ac. | (1 Indirect Contact; 1 Non Children Activity) |
| <u>1IC</u> ; 1No Ac. | (1 Indirect Contact; 1 No Activity) |
| <u>1DC+</u> ; 1Non Ch.Ac. | (1 Direct Contact; 1 Non Children Activity) |
| <u>1DC+</u> ; 1No Ac. | (1 Direct Contact; 1 No Activity) |

b) 2. If no activity is related to children (Non child-centred activity):

- | | |
|----------------------|--|
| <u>1HE</u> ; 1HE | (1 Housework and/or Dealing with Equipment; 1 Housework and/or Dealing with equipment) |
| <u>1HE</u> ; 1IA | (1 Housework and/or Dealing with Equipment; 1 Interaction with Adults) |
| <u>1IA</u> ; 1IA | (1 Interaction with Adults; 1 Interaction with Adults) |
| <u>1IA</u> ; 1No Ac. | (1 Interaction with Adults; 1 No Activity) |

1HE ; 1No Ac. (1 Housework and/or Dealing with Equipment;
1 No Activity)

b) 3. If no involvement is observed (No activity):

1No Ac. (1 No Activity)

1 No Ac.; 1No Ac. (1 No Activity; 1 No Activity)

c) if three or more activities take place sequentially or simultaneously within one unit of time, a procedure similar to the one described above is followed. As an example:

1DC+; 1IC; 1No Ac. (1 Direct Contact; 1 Indirect Contact;
1 No Activity)

1DC+; 1DC; 1IC (1 Direct Contact; 1 Direct Contact;
1 Indirect Contact)

Style of interaction was recorded and coded in the same way as that described above. Priority was given to those activities in which negative interaction was observed. This was done although other researchers (Tizard et al., 1976a) have rarely observed negative control to occur in classroom settings. Literature has indicated (Tizard et al., 1976a) that staff not in charge of the group would tend to use this type of control more than those in charge. Mothers had no previous preparation for working with children and were never left in charge of a group. For this reason, the observer thought it of interest to compare the amount of negative interaction observed for the different groups. If it was that mothers were observed to spend longer than the staff, this could have a special significance regarding their involvement. This is of particular importance because a negative relationship has been described by Tizard et al. (1976a) between this interaction and the language development of children.

As an example:

Recording: Teacher reprimands one girl (white); teacher does up boy's shoe laces (white); teacher talks to boy (white).

Coding: 1DC- (G,W); 1IC (B,W); 1DC+ (B,W).

1.4. Inter-Observer Agreement

1.4.1. Procedure Used to Obtain Inter-Observer Agreement

During the pilot stage of the study inter-observer agreement was tested. Two different sorts of observers were used: one trained and the second had no experience with this method. They did not receive previous training in this setting. For this reason, in both cases, after the first fifteen minutes of recording the observation process was interrupted. Recordings were discussed as a way of gaining mutual feedback on both occasions. Therefore, a greater understanding of the procedure used was achieved. This period was not considered in the final calculations on agreement.

Agreement was assessed in the two pre-schools of the study. A different observer checked agreement in each of the pre-schools. This was done to avoid further interference in the settings. In all instances, teachers and mothers were aware of the presence of the additional observer. The explanation given was that they were checking on whether the observations being collected on the "Own" child had been properly implemented.

In both pre-schools the study on agreement lasted one day and covered some of the morning and some after lunch sessions. The adults who were observed for this purpose were also subjects of the final stage of data collection. This could not be avoided because of the reduced number of subjects found. Also it was considered as a step towards habituation to the observer's presence.

The amount of time during which agreement was studied for the different subjects varied because the pre-school schedule had to be strictly followed.

Agreement between observers was counted when the same subject and the activity they were involved in occurred for both observers within a ten second interval. They were counted separately for mothers and teachers. In both cases, all agreements were summed up for all subject-activity pairs over the total observation period. To obtain agreement data the two observers, in both cases, simultaneously recorded activity involvement in the classrooms. Activities listed in Appendix No. IV were those for which percentage of agreement was calculated. A few categories, particularly those with low frequency of occurrence were dropped. These low frequency categories also showed low agreement.

Observation Categories

A list of the observation categories and their respective agreement coefficients is given below. The manual with detailed definitions, examples of the categories, as well as a copy of the recording form is in the Appendix (see Appendix No. IV, page 282).

The duration of these observations were as follows:

	Observers	
	Trained	Untrained
Mother	80 mins.	120 mins.
Teacher	47 mins	60 mins.

TABLE 3: INTER-OBSERVER AGREEMENT PERCENTAGES

	OBSERVERS			
	Trained		Untrained	
	Mothers	Teachers	Mothers	Teachers
	Units of Time in which both observers recorded activity	89.33	92.45	85.00
Units of Time in which both observers recorded same number of activities per unit of time				
Single Activity	95.00	97.00	90.00	92.00
Two Activities	86.00	91.23	81.00	85.00
Three or more	82.00	90.48	72.76	78.00
Units of Time for which both observers agreed on observed activity:				
<u>Non-Child Centred</u>				
Housework	100.00	100.00	98.00	96.00
Dealing with Equipment	94.00	96.00	87.00	94.00
Interaction with Adults	68.00	70.00	63.00	75.00
<u>Child Centred</u>				
Direct Contact	70.58	73.50	68.00	69.00
Indirect Contact	69.80	70.00	74.00	72.00
<u>No Activity</u>	90.00	90.40	86.50	87.00
<u>Style of Interaction</u>				
Negative Direct Contact	Not Obs	Not Obs	Not Obs	Not Obs

1.4.2. Discussion on the Procedure and Results Obtained

Both observers - trained and untrained - were aware that agreement was being assessed. This factor has been mentioned (Romanczyk et al., 1973) as one which inflates the percentages of agreement found in the studies. Also both were aware of the aims of the study and therefore covert assessment could not be used as a procedure. This overt observation procedure has also been pointed out as conducive to greater agreement (Scott, 1967). However, due to the conditions imposed upon this study no further agreements could be assessed.

The method of inter-observer agreement used has been described by Mitchell (1979) as one which only gives information on the agreement between two observers in terms of recording of a behaviour. The method used here does not give information on other aspects which have been described as important (e.g. Hollenbeck, 1978; Mitchell, 1979) when carrying out observational studies (see Section 1.4., Chapter 3).

This method of assessing agreement has been said (Mitchell, 1979) to be insensitive to degrees of measurement as it is based on the all-or-nothing phenomenon. Mitchell (1979) argues that this method underestimates the agreements.

More time than that available would have been required for a more thorough analysis of the reliability of the observational method. Also, the settings were too restrictive to allow such a thorough analysis. To obtain further detailed information would have required, for example, a comparison across subjects and across researchers. As conditions prevented analysing in depth, it must be acknowledged as a limitation to the present study.

The researcher of the present study recorded more activities per

unit of time compared to the other two observers; the untrained person recording the least activities per unit. These differences were greater at the commencement of the period and reduced substantially as observation was under way. The percentages of agreement obtained with the trained observer were on average greater than those with the untrained one. For both observers a higher degree of agreement was obtained for the recordings on teachers than on mothers.

Lack of agreement was observed more about what happened than on the coding of the event. On the whole, the coding of activities, except for minor ones which have been disregarded, presented no problems.

All other data were gathered by the present researcher. While some bias may arise as a consequence, financial and practical considerations prevented the use of other observers and the assessment of observer "drift" and "decay" (Johnson & Bolstad, 1973).

2. Discussion on the Method Used

As happens with most studies using the naturalistic method this one falls in the category of "quasi experimental" research (Campbell & Stanley, 1966; Matheson, 1978). Matheson (1978) argues that when these methods are used no degree of control can be imposed by the observer on any of the independent variables. As far as possible, therefore, the course of events occur in the same way as if no observation was taking place.

In this study teachers and mothers were observed under two different conditions. This was not the case for the nursery nurses who were observed in one only, i.e. when the teacher was present.

As has been said no deliberate changes were made in the environment except those changes which could have occurred naturally because of possible reactions to the presence of the observer.

In order to maintain the naturalness, as Matheson (1978) mentions the observer had to resort to unusual measurement techniques in order to keep behaviour patterns as normal as possible. There are several advantages and some disadvantages inherent to this methodology. One is that these results cannot be readily generalised to the population for several reasons, among others, because they do not include random sampling in terms of subjects, conditions and times of observation. Nevertheless, they have the advantage that at no time do other confounding variables take place and in this way it is expected that the subjects will be observed without significant changes in their behaviour.

In this particular study and due to the conditions in which it was carried out, methodological constraints have been imposed on the analysis of the data. Of these the most important will be mentioned:

- (a) unequal number of subjects were observed within each of the groups,
- (b) different total observation periods were observed for the different

subjects, (c) different total times of observation were observed for the different subjects in the different conditions in which they were observed.

In relation to each of these limitations it can be said that the first has implications for the statistical analysis and will be described later. The second problem was faced firstly by converting all frequencies into proportions in order to provide comparable data from subjects whose observation times differed in length. The other problem considered was to what extent these different numbers of observation periods might have provoked alterations in the data obtained: that is, whether unequal numbers of observation periods for the different subjects might influence the frequency with which the subjects observed became involved in the different activities studied.

In order to elucidate this problem, a correlational analysis (rank order) was carried out. In it, all times of observations obtained from the subjects in the different settings were related to the percentage of time in which they were observed to become involved in the different activities studied. No significant relationships between the total observation time and the percentage involvement were discovered at any point in the analysis. This is shown in Table 4. Therefore, this cannot be regarded as a limitation to this study.

TABLE 4

CORRELATIONS BETWEEN GLOBAL CATEGORIES OF ACTIVITIES WITH TOTAL OBSERVATION PERIODS FOR EACH CONDITION STUDIED

MOTHERS ALONE			
	Ch. Ac.	Non Ch. Ac.	No Ac.
T.O.P.	0.09	-0.36	-0.09

MOTHERS WITH TEACHERS			
	Ch. Ac.	Non Ch. Ac.	No Ac.
T.O.P.	0.05	0.17	-0.09

TEACHERS ALONE			
	Ch. Ac.	Non Ch. Ac.	No Ac.
T.O.P.	0.27	-0.27	-

TEACHERS WITH MOTHERS			
	Ch. Ac.	Non Ch. Ac.	No Ac.
T.O.P.	0.30	-0.298	-

NURSERY NURSES			
	Ch. Ac.	Non Ch. Ac.	No Ac.
T.O.P.	0.14	0.47	-

P A R T III: R E S U L T S

CHAPTER 5: ANALYSIS OF ACTIVITY INVOLVEMENT

1. The Conditions Under which Subjects were Observed in the Study

The analysis of results is organised in two sections. The first section was devised in order to analyse to what extent differences were observed between the mothers, the teachers and the nursery nurses in their everyday deployment in the pre-school setting. They were compared in terms of the amount of time each of the three groups spent involved in different activities, i.e. the "child" and "non-child centred" activities, as well as time spent wandering around the room without becoming involved in any activity. Further sub-divisions were made within the "child-centred" and "non-child centred" ones (see Appendix No. IV).

The second section was orientated towards analysing the way in which the mother's presence affected each individual "Own" child. This was basically in terms of the time the child was seen with the teachers and the quality of the interactions held when the mothers were present and when they were absent. This was with the intention of analysing whether, and to what extent, different patterns of behaviour emerged in the different conditions in which the study was set. A description of these conditions will follow. For all symbols used from now onwards, refer to KEY of activities, page 319.

1.1. Conditions Used in the First Section of the Study

Five conditions were examined to study the behaviour of the different subjects.

1.1.1. Condition One: Teachers Alone (T)

In this condition the interest was centred on the involvement

which teachers developed in their day-to-day practice in the classroom. The pattern of behaviours observed for this group was considered to be that of the "contrast group" (White & Watts, 1973), i.e. when group differences were searched for, this group was taken as the one against which all others were compared. The basic question posed was what sorts of activities do teachers become involved in and how are they observed to spread their time. Another aspect covered was to what extent do teachers as a group behave in a similar way.

1.1.2. Condition Two: Teachers with Mothers (TwM)

Here, the interest focussed on questions such as: were teachers observed to alter their behaviour when mothers were present? If the behaviours changed, in what respect was this observed to happen? Which behaviours were found to be most vulnerable to the mothers' presence? Also, do teachers react in a similar way to the mothers' presence or does the mothers' presence act as a deterrent to homogeneity of behaviour?

1.1.3. Condition Three: Mothers Alone (M)

In this condition, mothers' behaviour was studied to analyse their degree of involvement in the different activities. The analysis was basically a comparative one, i.e. Do mothers as a group, vary in their behaviour? If a wide variation was observed for this group, in what activities was this most evident? To what extent did their behaviours differ from those of teachers? In what activities are these differences clearly expressed? To what extent do mothers' behaviours overlap with those of teachers?

In the "alone" condition mothers were observed only during the periods when the teacher was out of the room (e.g. coffee breaks;

talking to headteachers). Mothers were never purposely left alone. On the whole, the observation periods for mothers in this condition were short as they were bound to end once the teacher returned.

1.1.4. Condition Four: Mothers with Teachers (MwT)

This analysis was centred around the patterns of behaviour which appeared to be more clearly delineated when mothers were observed together with teachers in the room. It was also interesting to examine whether the individual differences in the group were altered to any extent. When is the mothers' behaviour more like that of teachers, when alone or together in the room? Did the group of teachers act as relatively common influence or were each of the mothers reacting in a wide span of ways?

1.1.5. Condition Five: Nursery Nurses

In this condition the interest focussed upon what sort of behaviours were observed most frequently for the group of nursery nurses. This group was only observed together with the teacher in the room.

Questions were centred on whether the behaviours observed for nursery nurses were different from those of teachers and mothers. Also, in what conditions did teachers and mothers behave more like them? Did nursery nurses present a wide spectrum of behaviours? Was it wider than that observed for the other conditions?

1.2. Conditions Used in the Second Section of the Study

In this section the analysis was centred on the amount and sort of attention received by the group of "Own" children, i.e. children whose mothers were involved working in their classroom.

The same five conditions named above were used to implement this part of the investigation.

2. Data Analysis: Procedures and Assumptions

Before the data could be analysed, a number of problems involved in selecting adequate statistical procedures had to be resolved. In this study, the groups on which data analyses were based were formed of a small number of subjects. In such cases it is presumed that the distributions are not normal. Guilford & Fruchter (1978) suggest that before deciding which tests should be used, consideration has to be given to which of the possible procedures should be used, aiming always at the more powerful tests. This means for them that tests other than the distribution-free or non-parametric ones are to be preferred. According to Fryer (1966), in the cases of non-normality or when normality cannot be reasonably assumed, although it is always possible to turn to non-parametric tests, it is preferable to use appropriate algebraic transformations of the data to new scales of measurement. By doing this, Fryer (1966) says, data would come into a more satisfactory accord with the assumptions of the model of the analyses of variance. This is preferable, because by these transformations, it is generally believed, less information is lost, than when using non-parametric tests.

Scheffé (1959) points out that statistical methods ought to be chosen according to their optimality, that is, statistical methods are to be assessed in terms of whether or not they invalidate the assumptions underlying each of the tests used. Box (1953) suggests that statistical methods are robust if the inferences are not seriously invalidated by the violation of their underlying assumptions. It is generally assumed (Bonneau, 1960), that the t-tests are fairly robust with respect to

departures from homogeneity of variance and assumptions of non-normality. However, in the case of this study, as numbers are small, departures from normality would inevitably arise if t-tests were used on the raw data.

According to Plutchik (1974), the major limitation of non-parametric tests is that they are usually less sensitive to differences than a usual t-test would be. This is due, according to him, to the fact that the non-parametric tests usually reduce the set of measurements to ranks and manipulate only from the ranks. As such, the non-parametric tests are more likely to accept the Null Hypothesis, even when it is false, than a classical test would do. The problem raised by Blalock (1960) is that in using t-tests normality is assumed and this assumption can only be violated when numbers are small. He argues that this is because it is precisely in small samples that normality is more questionable. In these cases, Blalock says that the non-parametric tests are the alternative tests and could end up by being more useful. However, when using non-parametric tests, although they do not make so many assumptions, they do not take advantage of all the information available. Blalock (1960) adds that if more powerful tests are used they usually make more assumptions, so that using a more powerful test will involve a lower risk of Type II error. He says that the power of a test is inversely related to the risk of failing to reject a false hypothesis.

In this present study, because assumptions regarding homogeneity of variance as well as normality of distribution cannot be easily fulfilled, it was felt necessary to carry out different levels of analyses, depending on the nature of the problem and the properties of the available data. First the data were analysed as fully as possible in terms of descriptive statistical measures. In these instances raw data were used throughout. The measures used were the medians, modes and the ranges of the distributions.

Second, some data were transformed following Kerlinger's (1973) and Winer's (1971) recommendations into arcsin percentages. Then t-tests and ANOVA's were carried out on these transformed data. The use of such transformations are considered next.

According to Guilford & Fruchter (1978), the question of transformations is to be posed in terms of whether by some transformation it would be possible to convert the raw measurements into values of a new scale in which the distribution found is normal. Finding the adequate transformation it would be possible to apply parametric tests even if samples are small. In the case of this study, following Guilford & Fruchter (1978) and Winer (1971), non-linear transformations were used, the percentage or proportion data being transformed into the corresponding angle values in degrees of arc.

Plutchik (1974) indicates that there are two major sources of variability. One which reflects the differences between the groups because they have been treated in a different way. The second source of variability reflects the naturally occurring differences between the subjects, the treatments being equal. If (as was the case in the present study) groups had marked different variances, a comparison based on their means is questionable. In these cases, Plutchik (1974) and Winer (1971) suggest that a test for homogeneity of variance (F-test) may be appropriate as a preliminary test.

For one of the groups (i.e. mothers) in the present study, wide within group variability was observed across the different activities which were analysed. Therefore, to avoid assuming that differences which may be obtained between groups were due to the conditions (i.e. alone and with the teacher present) under which they were observed rather than to differences occurring between subjects, F-tests were

used in all cases in which data complied with the underlying assumptions (Winer, 1971). Only in groups for which the F-test did not reach a significant level were the analyses continued further and t-tests were used.

The need for appropriate statistics to analyse repeated measures was important in the present study. Repeated measures on the same subjects have been described as posing some problems (Winer, 1979). In this case, two groups of subjects (mothers and teachers) were studied under two different conditions. When repeated measures are used, it is expected that individual characteristics will remain constant throughout the conditions and in those cases the correlations between the subjects will tend to be positive. The observation of mothers and teachers for the two conditions which were studied cannot be expected to be entirely independent. Consequently, if differences are found in the subjects indicating behaviour differences in the two conditions, these would depend only in part upon the differences caused by treatment and partly upon uncontrolled sources of variation. ANOVA is the only procedure through which variances between subjects, conditions as well as within subjects can be studied. For this reason, in the present study whenever assumptions for using ANOVA were complied with, this procedure was used.

Spearman Rank coefficient was used in some instances throughout this study. This correlational analysis was used because its use has been suggested when numbers are small (Guilford & Fruchter, 1978). In using the correlational method, Hays (1963) suggests that independence of measures is required. If the correlations among a set of variables are fixed, then their correlations with other variables have a predetermined limit.

Hays (1963) argues that when using correlational analysis, the test of significance assumes independence of sampling. As in the case of other statistics used in this study (i.e. multiple t-tests) coefficients

will to some extent be significant by chance. Further details of the analyses used in each specific case will be given.

The reduced number of subjects, the sampling of subjects, as well as possible violations of some underlying statistical assumptions indicates that some restrictions are placed on the generalisability of the findings.

Only significant differences have been marked. Throughout the text a single asterisk (*) indicates a probability level of less than .05, two asterisks (**) a level of less than .02 and three asterisks (***) for less than .01.

Two tailed significance tests (otherwise indicated) were used in assessing the differences between groups when no predictions were made about one group being superior to the other.

3. Activity Involvement: The Two Stage Analysis

The main objectives of these analyses were to discover the nature of the mothers' involvement and the extent to which their behaviour was different from that of the staff who normally worked in the pre-school.

A two stage analysis was implemented for this purpose:

3.1. The Descriptive Stage

3.2. The Comparative Stage

3.1. The Descriptive Stage

The aim was to describe what was found in the five conditions in which the different adults of the study were observed. Median percentages were used because of the reduced number of subjects per group (Hays, 1963). The conditions comprised the everyday activities normally

found in the pre-school. No experimental alterations were imposed on the day-to-day flow of activities in the different classrooms. One or both of the nursery nurses, who normally worked in each of the rooms, were present throughout the observation periods.

3.1.1. Nature and Extent of Teachers' Involvement

At all times teachers were observed in their usual rooms. In all of the classrooms investigated, at least one mother was involved to some extent as a para-professional

3.1.1.1. Condition One: Teachers Alone

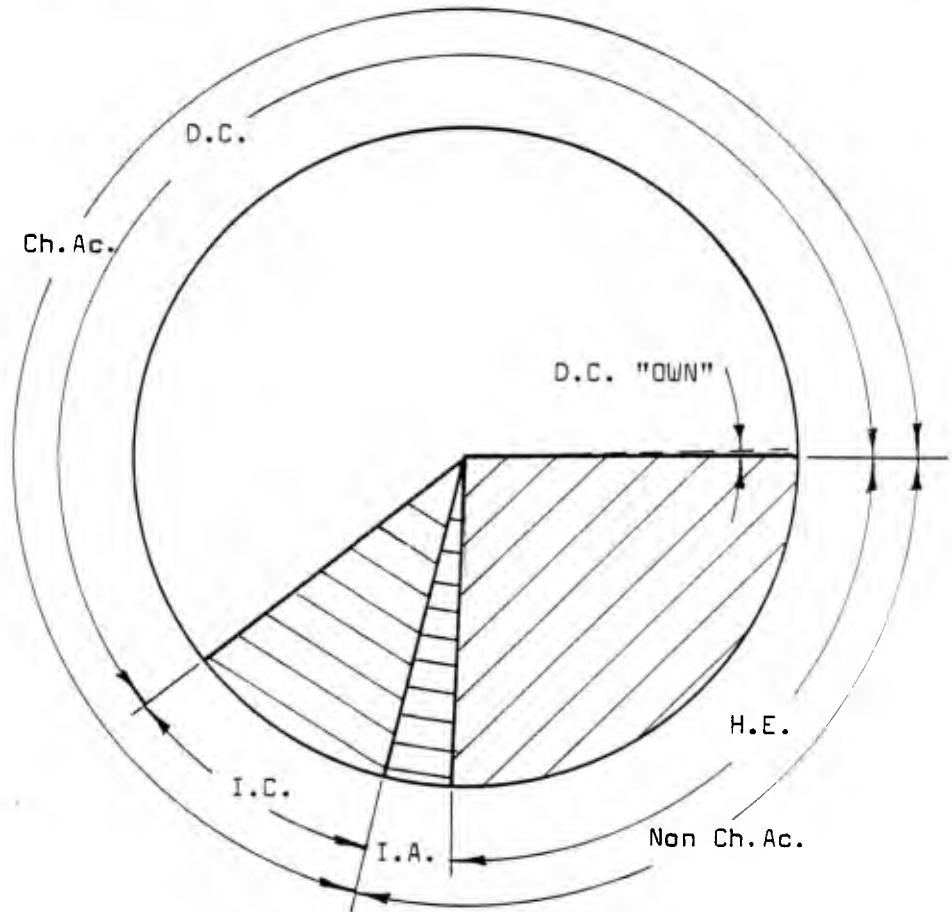
The most noticeable similarity observed for the group of teachers was that in all but one there was an overall pattern of behaviour indicating higher involvement in child-centred activities than in non-child-centred ones. The group on the whole was observed to spend approximately 70% of their time with children. For most of this time, that is nearly 61%, they were seen working or playing with the children. For the other 10% of the time, teachers were observed involved in activities which required them in a less direct relationship, such as supervision. To a certain extent, they appeared to be a somewhat varied group, and it was apparent that although the same sort of behavioural pattern was observed in nine out of the ten teachers, some "within group" differences were observed. These are shown in Table 5. The rest of the time, they were observed involved in non-child-centred activities. Most of this time was spent in dealing with equipment and/or housework type activities. Interaction with adults was seen very rarely.

TABLE 5: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY TEACHERS ALONE IN THE DIFFERENT ACTIVITIES AND THAT SPENT IN POSITIVE AND NEGATIVE INTERACTION

	Mn	Mode	\bar{X}	Range	\bar{X} (arc sine)	\int	\int
Ch. Ac.	69.67	69.00	66.70	43.59	55.06	54.26	7.35
D.C.		64.00 59.00					
	60.81	54.00	57.17	54.13	49.37	78.83	8.90
I.C.	10.53	14.00	9.53	14.77	16.85	41.46	6.44
N.Ch.Ac.	30.33	29.00	33.01	40.97	34.80	49.89	7.03
H.E.	25.58	24.00	27.19	38.34	31.09	45.29	6.73
I.A.	3.31	4.00	5.82	23.89	11.10	78.64	8.87
No Ac.	0.00	0.00	0.29	2.63	1.03	8.51	2.92

	Mn	Mode	\bar{X}	Range
DC+	56.25	54.00	55.49	54.13
DC-	0.00	0.00	1.68	5.11

FIGURE 1: DIAGRAM REPRESENTING PERCENTAGE OF TIME TEACHERS ALONE SPENT IN THE DIFFERENT ACTIVITIES



In terms of style of interaction teachers were on the whole observed to use little negative control as is shown in Table 5. Further analyses were carried out in an attempt to clarify the nature of the "within group" differences which have been described (see Section 3.3.1, Chapter 5).

3.1.1.2. Condition Two: Teachers with Mothers

The most dominant activity for the eighteen teacher-mother pairs observed in this condition was that nearly 67% of their time was spent in child-centred activities. For about 54% of this time they were involved in activities which kept them in direct contact with the children, i.e. they were playing or working with them. For the remaining 13%, they were involved in general supervisory activities or other such activities which meant being in indirect contact with the children. The non-children activities occupied the teachers for the remainder of the time. Most of this time was spent dealing with equipment and/or housework activities. Negative contact was seen less often (see Table 32).

FIGURE 2: DIAGRAM REPRESENTING PERCENTAGE OF TIME TEACHERS WITH MOTHERS SPENT IN THE DIFFERENT ACTIVITIES

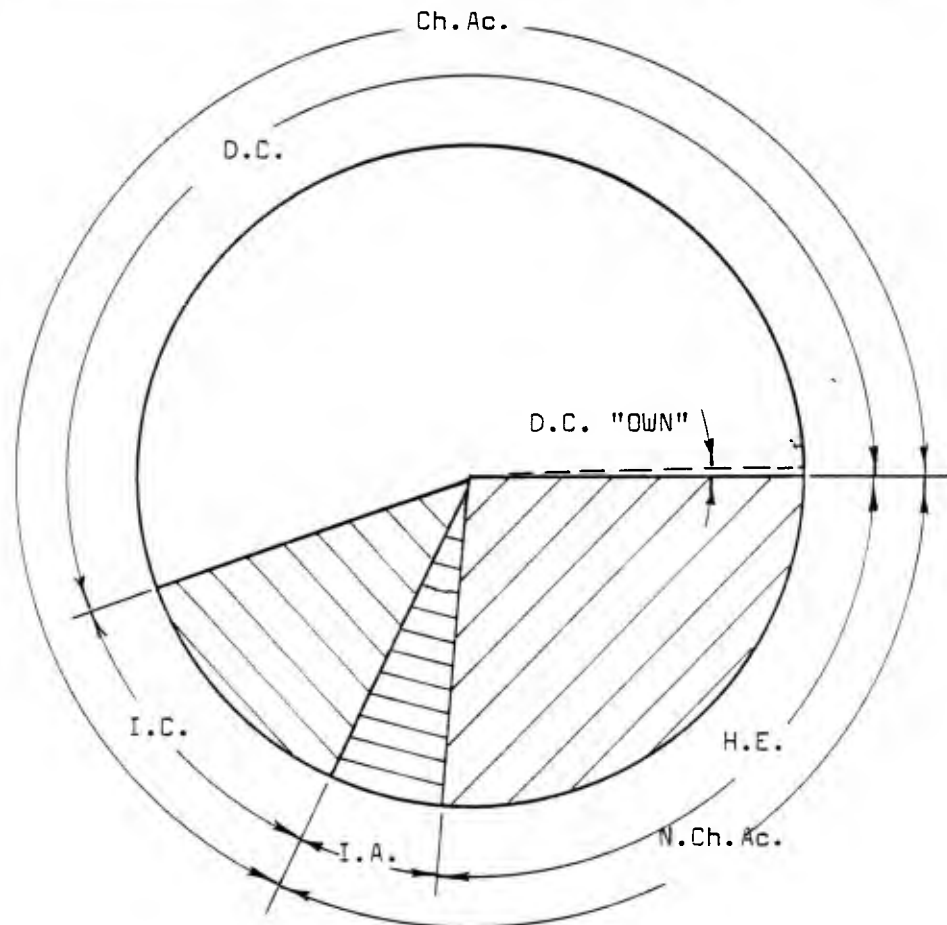


TABLE 6: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY TEACHERS WITH MOTHERS IN THE DIFFERENT ACTIVITIES AND THAT SPENT IN POSITIVE AND NEGATIVE INTERACTION

	Mn	Mode	\bar{X}	Range	\bar{X} (arc sine)	σ^2	σ
Ch. Ac.	67.01	69.00	66.94	34.91	55.21	44.94	6.70
D.C.	53.74	54.00	54.17	46.30	47.51	59.38	7.71
I.C.	12.49	14.00	7.76	70.58	19.63	62.11	7.88
N.Ch.Ac.	32.99	34.90	32.59	34.90	34.50	46.51	6.82
I.A.	5.42	7.00	7.56	22.73	14.58	47.83	6.92
H.E.	25.34	27.00	24.75	36.24	29.44	36.46	6.04
No Ac.	0.00	0.00	0.47	4.65	1.57	13.21	3.63

The pattern of higher involvement in child- over non-child-centred activities was seen in all but one of the teacher-mother pairs despite the fact that as individuals teachers behaved differently.

3.1.2. Nature and Extent of Mothers' Involvement

Mothers were studied in the room in which their "Own" child attended regularly. For this reason, a two-level analysis was used for the two conditions where the mother was the centre of attention. The first considered all the data collected for the mother regardless of which child she was involved with. The second only covered the time she spent with children other than her "Own". This was done basically because as observations took place the observer realised that when mothers were busy with their "Own" child, their participation with the rest of the children acquired quite a different character.

3.1.2.1. Condition Three: Mothers Alone

Mothers' most predominant activity was clearly the time they spent centred on children. At the first level, i.e. when all children were considered, 70% of their time was spent in these activities. However, this dropped to 60% in the second level, i.e. when the time spent with their "Own" child was deducted. Direct interaction was the most frequently observed activity of those centred on children, at both levels (see Table 7). The remaining time was spent in activities of a more indirect nature, such as supervising or doing the chores. There was a marked difference in the amount of time each mother spent in child-centred activities, as shown in Table 7, page 124.

Mothers were observed involved in non-child-centred activities for about 35% of the time. The most frequently observed non-child activity

*

TABLE 7: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY MOTHERS ALONE IN THE DIFFERENT ACTIVITIES AND THAT SPENT IN POSITIVE AND NEGATIVE INTERACTION

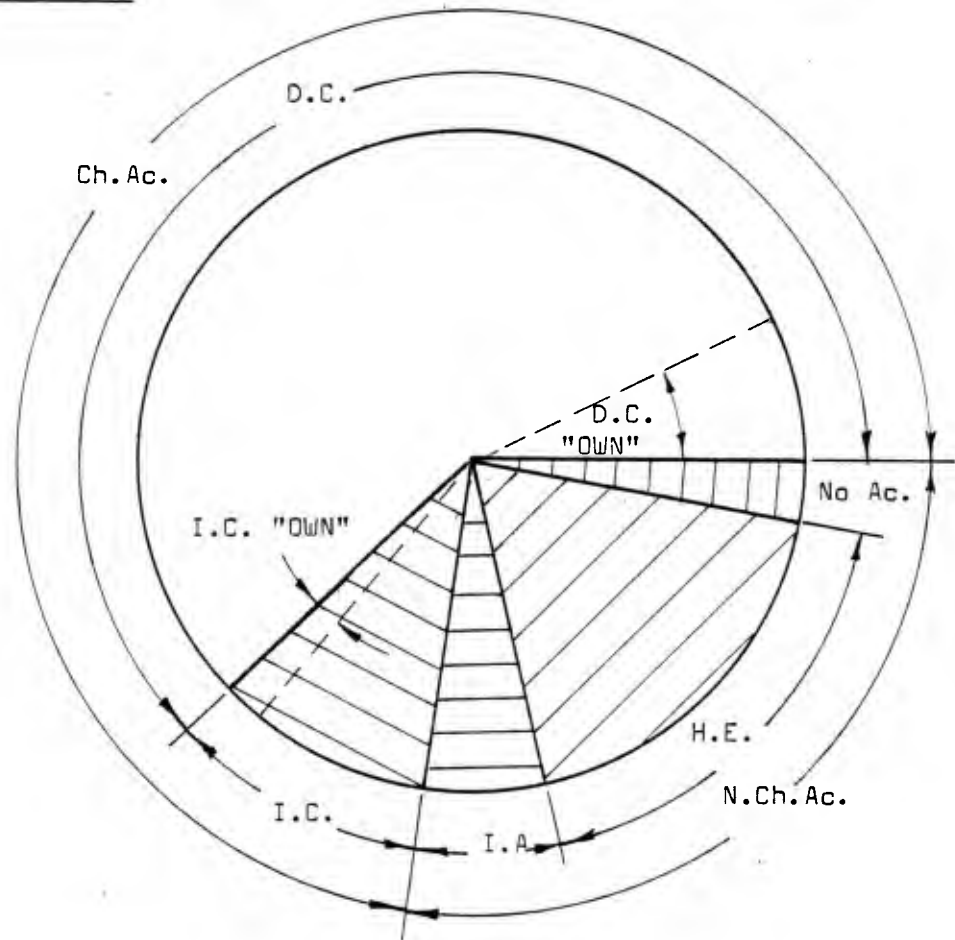
	Mn	Mode	\bar{X}	Range	\bar{X} arc sine	σ^2
Ch.Ac.	70.01	79.00 34.00	63.39	45.29	-	-
D.C.	60.85	59.00 64.00	51.40	54.80	-	-
I.C.	10.58	9.00	11.99	24.08	-	-
N.Ch.Ac.	34.58	34.00	32.32	51.12	33.98	100.58
I.A.	5.78	4.00	6.25	16.28	13.48	30.23
H.E.	17.96	19.00	24.74	44.01	28.92	98.45
No Ac.	2.78	4.00	4.25	18.60	10.23	40.05

*

	Mn	\bar{X}	Range
Ch.Ac.	60.46	53.65	54.26
D.C.	46.22	44.24	62.35
I.C.	9.28	9.41	18.95

* Time with the "Own" Child is Disregarded from Total Children's Time

FIGURE 3:
DIAGRAM REPRESENTING PERCENTAGE OF TIME MOTHERS ALONE SPENT IN THE
DIFFERENT ACTIVITIES



was dealing with equipment and/or doing housework. The mothers were observed relatively infrequently interacting with other adults in the room.

For the remainder of the observation time, about 3%, the mothers were observed wandering around the room or occupied on their own. Amongst mothers, time spent in "No Activity" varied considerably, but not as much as that spent in child-centred activities.

In terms of style of mothers' behaviour, they showed very infrequent negative forms of interaction (such as reprimands: see Table 34).

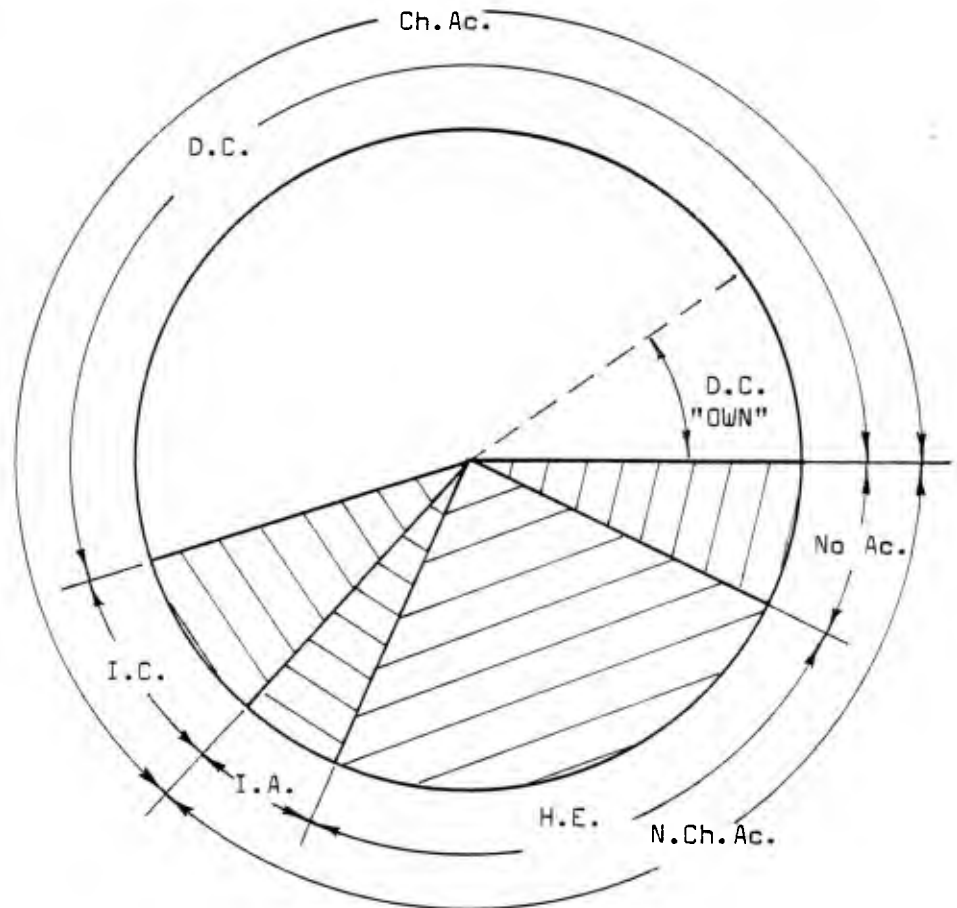
3.1.2.2. Condition Four: Mothers with Teachers

The most dominant activity in this condition was child-centred. When all children were considered, this occupied mothers for 59% of the observation time. This dropped to 50% when the time with the "Own" child was deducted. For nearly all the child-centred time at both levels studied, direct interaction was the predominant activity (see Table 8).

For the rest of this time they were occupied in more indirect interaction with children. In this condition, each mother behaved very differently from the others, in both direct and indirect contact.

When analysing time spent in non-child-centred activities, figures indicated that the mothers were involved mainly in dealing with equipment

FIGURE 4: DIAGRAM REPRESENTING PERCENTAGE OF TIME MOTHERS WITH TEACHERS SPENT IN THE DIFFERENT ACTIVITIES



*
TABLE 8: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY MOTHERS WITH TEACHERS IN THE DIFFERENT ACTIVITIES AND THAT SPENT IN POSITIVE AND NEGATIVE INTERACTION

	Mn	Mode	\bar{X}	Range	\bar{X} (arc sine)	χ^2
Ch. Ac.	59.10	34.00 79.00	58.22	74.92	-	-
D.C.	50.10	59.00	46.79	75.72	-	-
I.C.	7.67	4.00 9.00	11.43	26.13	-	-
N.Ch.Ac.	34.58	34.00	34.58	75.00	33.24	258.71
I.A.	4.76	3.00	7.98	36.54	14.01	83.29
H.E.	22.31	39.00	25.46	57.77	28.07	178.66
No Ac.	6.44	4.00	8.20	27.50	14.03	80.70

*

	Mn	\bar{X}	Range
Ch. Ac.	50.21	44.66	77.51
D.C.	39.27	36.71	78.17
I.C.	5.92	8.33	22.62

* Time with the "Own" Child is disregarded from Total Children's Time

and/or doing housework activities. Interaction with other adults took place infrequently. This is shown in Table 8. For the remainder of the time (6.44%) the mothers wandered around the room or were engaged in activities on their own. Negative interaction was very rarely seen (see Table 8).

3.1.3. Nature and Extent of Nursery Nurses' Involvement when Observed together with the Teacher

Nursery nurses were only observed in the room in which they normally worked, when the teacher was present and without the mother.

3.1.3.1. Condition Five: Nursery Nurses

When analysing the pattern of behaviour presented by nursery nurses with the teacher present, it was found that the activities which occupied most of their time were those related to children (67.12%). More than three-quarters of this time they were involved in direct contact and 8% in indirect interaction.

For almost 32% of their time, they were engaged in non-child-centred activities, most of it dealing with equipment and/or doing housework. They were seen very infrequently interacting with other adults. Behaviour within the group of nursery nurses appeared to be somewhat varied in

FIGURE 5:

DIAGRAM REPRESENTING PERCENTAGE OF TIME NURSERY NURSES SPENT IN THE DIFFERENT ACTIVITIES

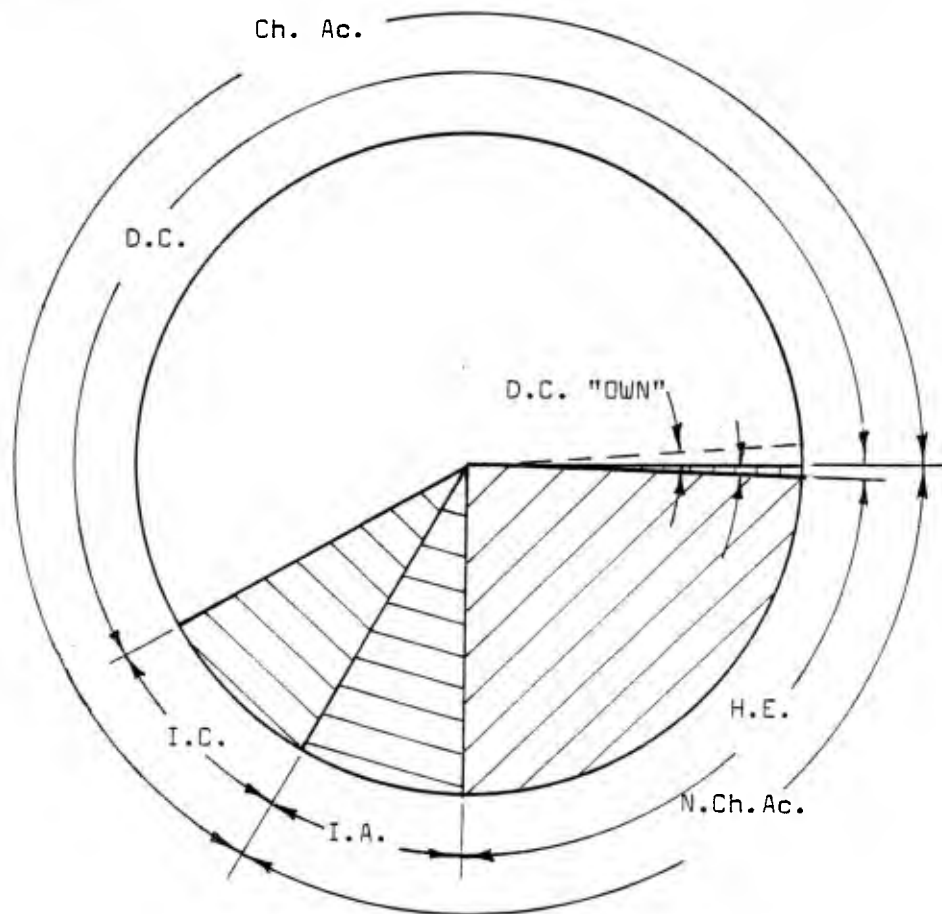


TABLE 9: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY THE NURSERY NURSES IN THE DIFFERENT ACTIVITIES AND THAT SPENT IN POSITIVE AND NEGATIVE INTERACTION

	Mn	Mode	\bar{X}	Range	\bar{X}_{sing}	σ^2
Ch.Ac.	67.12	71.32	64.31	31.97	53.74	39.33
D.C.	57.31	59.50	54.55	23.86	47.39	21.99
I.C.	8.51	7.62	9.76	11.19	17.89	13.28
N.Ch.Ac.	32.10	45.88 25.27	34.44	30.91	35.68	44.53
I.A.	8.11	9.00	10.30	11.00	—	—
H.E.	24.53	19.00 29.00 34.00	24.14	24.80	—	—
No Ac.	0.4	0.69	1.25	6.85	4.11	25.23

	Mn	\bar{X}	Range
DC+	54.15	52.35	23.53
DC-	2.45	2.21	2.39

relation to the time they spent involved in each of these activities. As is shown in Table 9, nursery nurses were seen wandering in the room or engaged on their own for short spells of time.

In terms of style, negative interaction was observed to occur very rarely. Data are shown in Table 9.

3.1.4. Summary

In the five conditions studied, all groups were seen to spend more time in child-centred activities than in non-child-centred ones. Of the former the most predominant one was time spent in activities involving direct contact. When studying the groups of mothers and teachers, it was seen that the presence of the other adult reduced the time which each dedicated to children. Nevertheless, it still continued to be higher than the time spent in the rest of the activities. As a group, teachers were observed to spend most time with children, followed closely by nursery nurses. See figure 6.

Mothers spent more time in child-centred than in non-child-centred activities irrespective of whether the time spent with their "Own" child was included or not. Regardless of how long they spent only with their "Own" children, time devoted to all other children was always greater than their "Own" child time. See figures 7 and 8, page 133.

When analysing activities which did not involve children, it was seen that in all conditions studied, most time was spent dealing with equipment rather than doing housework.

The group of mothers showed the highest scores for time spent not involved in any activity. This 'not-involved' time was greater when the teachers were also present.

When considering style of interaction, negative interaction occurred very infrequently in all five conditions. Although nursery nurses showed

FIGURE 6: DIAGRAM COMPARING THE PERCENTAGE OF TIME SPENT BY THE DIFFERENT GROUPS IN CHILD ACTIVITIES, NON-CHILD ACTIVITIES AND NO ACTIVITY

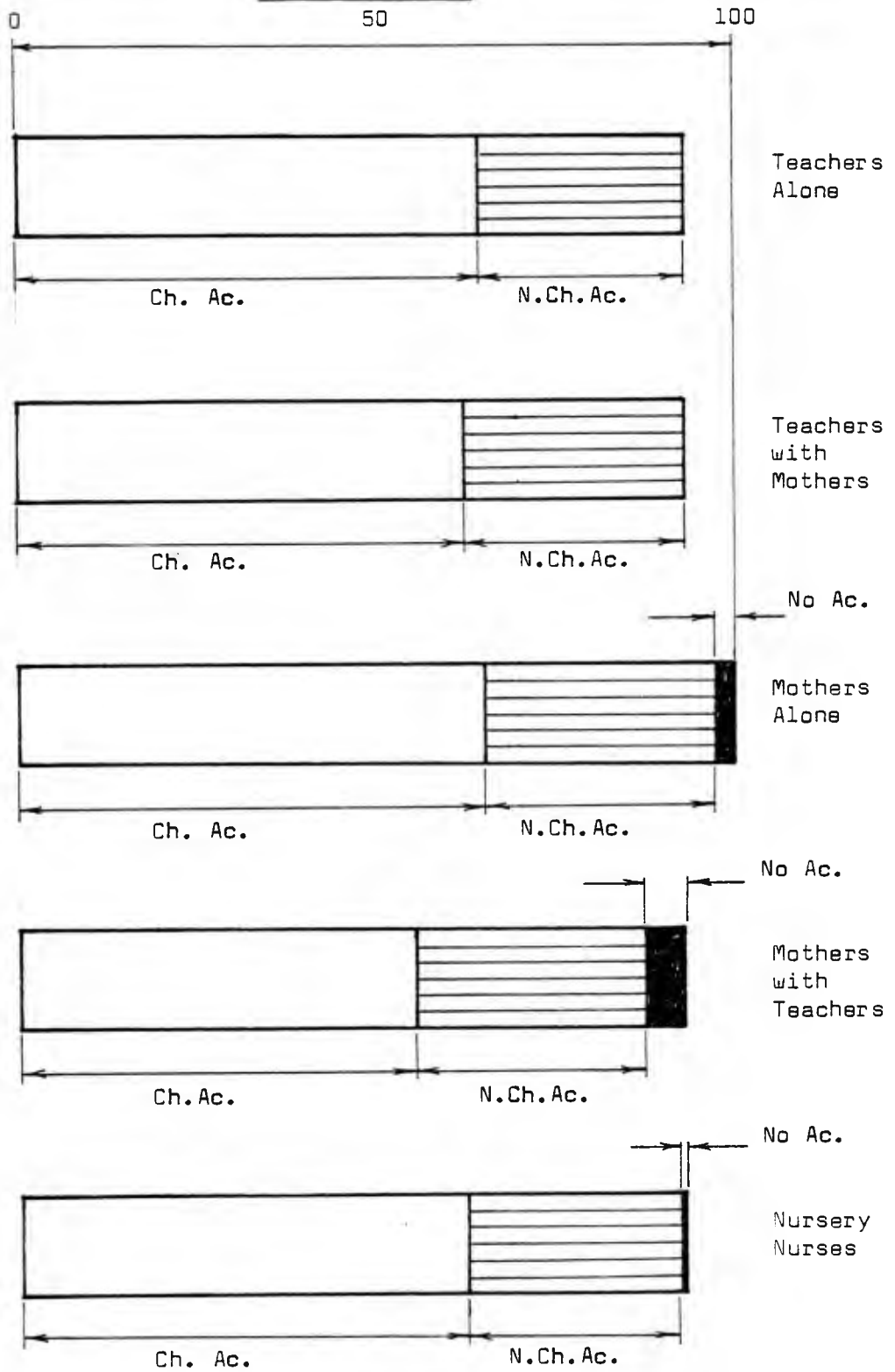


FIGURE 7: DIAGRAM COMPARING THE TIME MOTHERS SPENT WITH THE "OWN" CHILD AND THAT WITH OTHER CHILDREN IN ALL THE ACTIVITIES

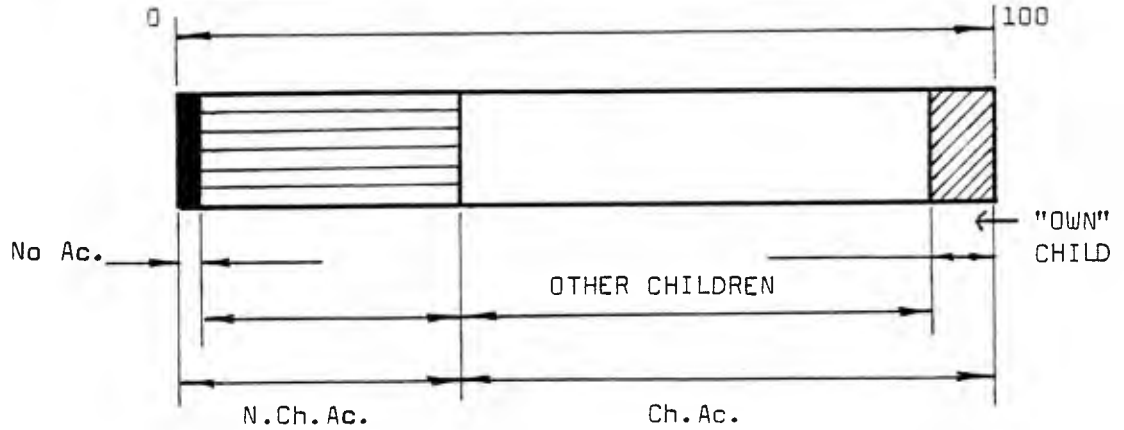
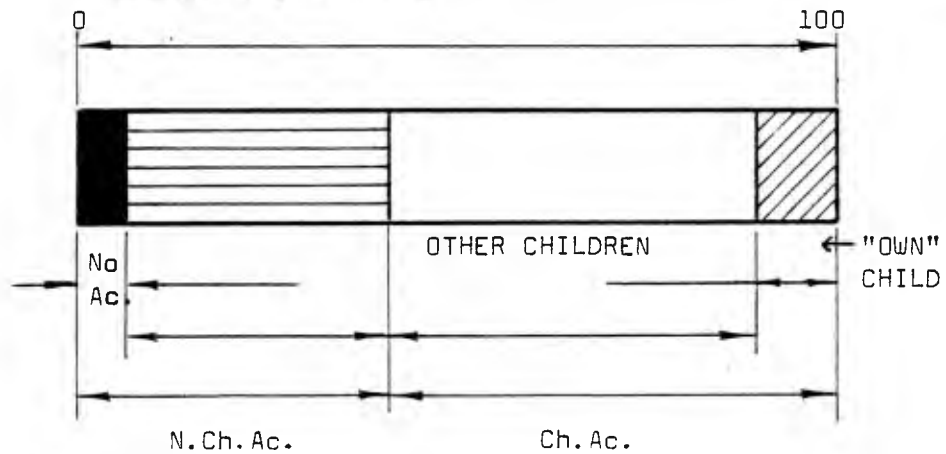


FIGURE 8: DIAGRAM COMPARING THE TIME MOTHERS WITH TEACHERS SPENT WITH THE "OWN" CHILD AND THAT WITH ALL OTHER CHILDREN IN ALL THE ACTIVITIES



more negative interaction than teachers or mothers, in absolute terms it was still low.

The descriptions presented here show that mothers as a group had a much wider spectrum of behaviours than did teachers or nursery nurses, i.e. more individual differences were observed within the group of mothers than in that of teachers or nursery nurses. This spectrum widened when the teacher was also present.

3.2. The Comparative Stage

When comparing groups, it was not always possible to study the overall statistical differences because of the inherent characteristics of the data. As has been said in the section on underlying assumptions of the data analysis, only by using ANOVA would it have been possible to account for variances between subjects, between treatments and within subjects. The tables which follow include only those "between group" comparisons which when assessed appeared to have significantly different results. The rest of the data will only be analysed descriptively.

As has been mentioned, the problems inherent in using multiple t-tests (Guilford & Fruchter, 1978) were present, but it was felt important to find a way in which the groups could be reliably compared. Not many significant differences between the groups were found, but when they were, they were to some extent consistent with the direction predicted and this could therefore indicate that the "between group" differences could be considered meaningful and not only attributable to chance.

Wide within-group differences were obtained. F-tests were used when data complied with underlying assumptions to test for the significance of these within-group differences (Guilford & Fruchter, 1978).

Time sampling was the method used throughout the study. The time sampling was of 60-seconds in length and consists of a 10-second observation period and a 50-second recording period. As somewhat long periods elapsed between each of the observation periods, it was decided that it could have been misleading to consider initiative. This meant that when studying adult-child and adult-adult interaction, no consideration was given to who initiated the contact.

3.2.1. Across Condition Analysis

The possibility that the mothers' and teachers' behaviour could be altered by the presence of the other was explored by comparing their behaviours in the two conditions, i.e. alone and with the other present.

3.2.1.1. Mothers Alone and Mothers with Teachers

The behaviour of mothers in child-centred activities was investigated considering the two above-mentioned conditions (see Section 3.1.2.).

With respect to direct contact, there were no significant differences in the mothers' time devoted to all children, when seen alone or with the teacher. Also differences were not observed when time with "Own" children was disregarded. For time spent in indirect interaction, differences between conditions were nonexistent at both levels.

Mothers behaved significantly ($F = 70.94$; $p < 0.05$) differently across the two conditions when time spent interacting with adults was investigated. Mothers behaved in a significantly ($t = 2.41$; $p < 0.05$) dissimilar way across the two conditions studied with respect to time spent not involved in any activity. More time was spent not involved when teachers were present. When alone, the within-group variation of mothers was wide and this became more marked when the group was observed with the teacher.

3.2.1.2. Teachers Alone and Teachers with Mothers

The only significant ($t = 1.85$; $p < 0.05$) difference obtained for this group across the two conditions (i.e. alone and with

mother) was in terms of the time involved interacting with other adults. As might be expected, this was greater for the "with mother" condition.

On the whole, the group of teachers presented a somewhat large "within-group" variability. These "within-group" differences were larger for the "alone" than for the "with mother" condition.

Further analyses were carried out in an attempt to clarify the nature of these differences (see Section 3.3.1.).

3.2.1.3. Summary

Mothers spent significantly longer involved interacting with other adults when the teacher was present than when alone. Also, significantly more time was spent by mothers when alone not involved in any activity. When mothers were alone large individual differences were observed for each activity. These differences also varied from activity to activity (e.g. they were more marked for time spent in child-centred activities, than for "No Activity"). Also they became more apparent when the teacher was present. The teachers' behaviour showed the reverse pattern; less individual differences were observed when the mother was there.

3.2.2. Between Group Differences

3.2.2.1. Time spent involved in Child-Centred Activities

With respect to time spent in these activities when considering mothers' time with all children, no significant differences were observed between the five conditions (Mothers alone, Mothers with Teachers, Teachers alone, Teachers with Mothers, Nursery Nurses). An

TABLE 11: BETWEEN GROUP COMPARISONS FOR TIME SPENT IN NO ACTIVITY (INDEPENDENT t-TEST AND F-TEST)

N	M vs. T 14 9	M vs. TwM 14 18	MwT vs. T 18 9	MwT vs. TwM 18 18	NN vs. M 8 14	NN vs. MwT 8 18
\bar{X}	10.23 vs. 1.03	10.23 vs. 1.57	14.30 vs. 1.03	14.30 vs. 1.57	4.11 vs. 10.23	4.11 vs. 14.30
s^2	43.14 vs. 9.55	43.14 vs. 13.93	85.38 vs. 9.55	80.70 vs. 13.21	25.23 vs. 40.05	25.23 vs. 80.70
t	-	-	-	-	2.37	3.53
P					0.05*	0.01***
F	4.52	3.10	8.94	6.10		
p	0.05*	0.05*	0.05*	0.05*	N.S.	N.S.

P < 0.05*

P < 0.01***

interesting aspect was that the mothers' behaviour was quite similar to that of the other group. The teachers spent only slightly more time in direct interaction with children compared with all other groups. This was true for both conditions in which they were observed (alone and with the mother).

However, when disregarding the mothers' time with the "Own" child only, significant differences did emerge. These are shown in Table 10.

- Teachers Alone and Mothers Alone -

A tendency to spend significantly ($t = 1.88$; $p < 0.05$) more time in direct contact was observed for the group of teachers.

- Teachers with Mothers and Mothers Alone -

Teachers showed a tendency to be involved for significantly ($t = 1.79$; $p < 0.05$) more time in direct contact than did mothers.

- Mothers with Teachers and Teachers Alone -

When considering time in direct contact, the time for mothers in this condition was significantly ($t = 2.88$; $p < 0.01$) lower than that of teachers when alone.

- Mothers with Teachers and Teachers with Mothers -

In this condition, mothers had significantly ($F = 2.72$; $p < 0.05$) more varied scores with respect to time spent in direct interaction compared with that of teachers when the mother was present.

- Mothers with Teachers and Nursery Nurses -

Differences between these two groups were observed when the attention was centred on time spent in direct interaction.

In this condition, mothers as a group presented significantly ($F = 8.72$; $p < 0.01$) more varied behaviours between them than those shown by nursery nurses.

- Mothers Alone and Nursery Nurses -

Significant differences were observed between these two groups, mothers showing a significantly ($F = 4.81$; $p < 0.05$) wider within-group difference in time spent interacting directly with the children than did nursery nurses.

3.2.2.2. Time spent involved in Non-Child Centred Activities

In terms of the time each of the groups spent involved in these activities, no significant differences were found between the conditions. At a descriptive level it can be said that the group of nursery nurses was observed to be the one which spent slightly more time in these non-child-centred activities. The group of mothers in both the conditions studied, was the group observed to spend the least amount of time involved in them. The only significant difference ($F = 3.94$; $p < 0.05$) was in dealing with equipment indicating that teachers differed individually more than mothers with teachers.

3.2.2.3. Time spent not involved in Any Activity

In terms of the time spent not involved in any activity, significant differences were observed between the groups. In all cases, it was the mothers' scores which indicated the most time "not involved".

These differences were for mothers alone compared with nursery nurses ($t = 2.37$; $p < 0.05$). Also for mothers with teachers ($t = 3.53$; $p < 0.01$) compared with nursery nurses (see Table 11).

TABLE 10: BETWEEN GROUP COMPARISONS FOR TIME SPENT IN DIRECT CONTACT (INDEPENDENT t-TEST AND F-TEST)

	M vs. T 14 9	M vs. TwM 14 18	MwT vs. T 18 9	MwT vs. TwM 18 18	NN vs. M 8 14	NN vs. MwT 8 18
\bar{X}	41.41 vs. 49.37	41.41 vs. 47.51	36.13 vs. 49.37	36.13 vs. 47.51	47.39 vs. 41.41	47.39 vs. 36.13
t	1.88	1.79	2.88	-	-	-
p	0.05 /	0.05 /	0.01***	-	-	-
F	N.S.	N.S.	N.S.	2.72	4.81	8.72
P				0.05	0.05*	0.01***

p 0.05 / tendency to a significant difference

p < 0.01***

3.3. Within Group Differences

As has been said, the primary aim of this section of the study was to provide descriptive information on the nature and extent of the involvement of the mothers, nursery nurses and nursery teachers in the different activities. However, at this stage the analysis was extended to look for similarities and differences found within the groups and thus study the way in which these were affected by other factors.

The approach adopted was to study the ratings for the different subjects in the different activities in which they were involved and then to analyse each of the groups, distributing them according to criteria which will follow. The advantage of this method is that it enables the observer to use the same data which have been collected for the other sections and then analyse them in a different way. As such, this section did not require additional data collection and suited the intention of the study. Furthermore, using this "within group" analysis enables a more individually based analysis than the previous one. The aim, therefore, is to investigate whether the groups' similarities and differences were due more to certain individual differences or to the group as a whole, i.e. differences depend more on individuals than on groups.

The factors considered for each of the groups differed according to the particular characteristics of each.

The analysis for the group of mothers considered aspects such as the way in which the intake of mothers was implemented, by teachers ('Accepted') or by headteacher ('Imposed'), and how long they had been involved when the study commenced. Those who were working before the

continues on page 150

either too small within each group or they were very different between the group; in these cases statistical analysis is not recommended (Plewis, I., Personal communication, 1979).

3.3.1. The Teachers

Table 12 and 13 show the median percentages obtained for teachers who were 'New' and 'Old', as well as those grouped as being of "High" and "Low" status. This has been done for both conditions in which teachers were studied.

'New' versus 'Old'

On the whole there were few group differences.

When the group of teachers was studied in the "alone" condition, in terms of the time they had spent working in that school, the group which had spent less time ('New') was observed to spend more time in activities which required closer contact with the children, than did those who had been at the school longer ('Old'). The 'Old' group appeared to spend more time than the 'New' group in those activities in which teachers related more indirectly.

Although in the group of teachers as a whole, negative contact was observed very infrequently, the 'Old' group used this negative style of interaction for about 3% of their time, whereas the 'New' group was never observed to do so.

The group of 'Old' teachers was observed spending longer than the 'New' group in activities which required no contact with the children. This was true for both activities in this category, i.e. dealing with equipment and also interacting with adults.

Both sub-groups of teachers were observed to behave in a similar way when observed with the mother present. Their style of interaction

TABLE 12: WITHIN GROUP DIFFERENCES FOR THE TEACHERS ALONE

		New vs. Old %		High vs. Low %	
		2	7	2	5
Ch.Ac.	N	2	7	2	5
	Rg	18.26	34.02	11.56	28.61
	Mn	76.58	69.67	70.36	69.67
D.C.	N	2	7	2	5
	Rg	29.87	32.05	9.28	29.23
	Mn	70.78	60.81	56.72	60.81
I.C.	N	2	7	2	5
	Rg	11.63	8.21	2.27	6.45
	Mn	5.82	10.53	9.92	13.64
N.Ch.Ac.	N	2	7	2	5
	Rg	18.27	40.97	12.15	25.99
	Mn	23.43	30.33	29.34	30.33
H.E.	N	2	7	2	5
	Rg	11.29	34.45	14.95	26.68
	Mn	19.94	25.95	27.94	25.95
I.A.	N	2	7	2	5
	Rg	0.00	34.45	3.41	23.07
	Mn	0.00	9.28	1.71	3.31
No Ac.	N	2	7	2	5
	Rg	0.00	2.63	0.00	2.63
	Mn	0.00	0.00	0.00	0.00
D.C.-	N	2	7	2	5
	Rg	0.00	5.11	5.11	4.78
	Mn	0.00	2.79	2.56	2.46

TABLE 13: WITHIN GROUP DIFFERENCES FOR THE TEACHERS WITH MOTHERS

		Old vs. New %		High vs. Low %	
Ch. Ac.	N	6	10	7	9
	Rg	33.33	28.57	33.33	25.06
	Mn	66.44	65.04	64.70	67.35
D.C.	N	6	10	7	9
	Rg	40.10	40.94	40.10	40.94
	Mn	48.53	56.87	51.96	60.46
I.C.	N	6	10	7	9
	Rg			26.67	19.25
	Mn	13.35	12.16	12.74	12.24
N.Ch.Ac.	N	6	10	7	9
	Rg	33.34	30.13	33.34	25.06
	Mn	33.56	34.11	35.29	32.65
H.E.	N	6	10	7	9
	Rg	18.48	29.54	19.95	24.24
	Mn	22.08	29.40	27.28	26.53
I.A.	N	6	10	7	9
	Rg	20.88	10.47	21.12	10.42
	Mn	12.68	4.82	4.88	6.12
No Ac.	N	6	10	7	9
	Rg	0.00	0.00	0.00	4.65
	Mn	0.00	0.00	0.00	0.00
D.C. -	N	6	10	7	9
	Rg	3.20	0.00	11.90	4.65
	Mn	6.98	11.90	1.85	0.00

was also similar. The only activity in which differences were more clearly seen was in time spent interacting with adults; in this case the 'Old' group of teachers clearly spent more time than the 'New' group did.

"High" versus "Low" Status

There were very few differences between the "High" and "Low" status teachers when seen alone. The individual differences in the "Low" group were quite marked and much higher than in the other group throughout all activities; direct contact with children being the greatest. When teachers were with mothers there was a very similar pattern of behaviour to that just described. Wide within-group variability was also found in this condition for all activities; direct contact once again being the greatest.

3.3.2. The Mothers

Table 14 , page 149, shows the data for the sub-groups - 'Accepted' versus 'Imposed' and 'New' versus 'Old'.

Groups differed more according to how they had joined as helpers (i.e. 'Imposed' - invited by the headteacher versus 'Accepted' - invited by the teacher) than they did with respect to how long they had been working there (i.e. 'New' versus 'Old'). Mothers who had been involved for less time ('new') presented a more varied pattern of behaviour.

The group invited by the headteacher and those in the group of 'New' mothers clearly overlapped. It was found that only two of the seven 'Imposed' mothers did not also belong in the group of 'New' mothers. Five of the seven mothers of the sub-sample invited by the

TABLE 14: WITHIN GROUP DIFFERENCES FOR THE MOTHERS ALONE

		Old vs. New		Accepted vs. Imposed	
		%		%	
Ch.Ac.	N	6	8	7	7
	Rg	34.36	45.29	41.27	45.29
	Mn	65.11	74.05	74.55	62.79
D.C.	N	6	8	7	7
	Rg	44.58	51.04	35.12	54.80
	Mn	62.04	59.04	63.61	60.47
I.C.	N	6	8	7	7
	Rg	24.08	6.30	16.63	24.08
	Mn	9.83	10.18	10.22	11.05
N.Ch.Ac.	N	6	8	7	7
	Rg	37.78	49.86	42.15	48.34
	Mn	32.01	24.50	22.84	32.56
H.E.	N	6	8	7	7
	Rg	34.31	43.34	40.40	41.67
	Mn	17.96	17.46	16.86	18.60
I.A.	N	6	8	7	7
	Rg	10.54	16.28	10.54	16.28
	Mn	5.08	6.16	5.79	5.77
No Ac.	N	6	8	7	7
	Rg	4.34	18.60	5.46	18.60
	Mn	2.78	2.78	1.78	4.65
D.C.-	N	6	8	7	7
	Rg	3.15	8.88	8.88	3.15
	Mn	1.79	1.01	1.05	1.67

TABLE 15: WITHIN GROUP DIFFERENCES FOR THE MOTHERS WITH TEACHERS

		Old vs. New %		Accepted vs. Imposed %	
		6	10	7	9
Ch. Ac.	N	6	10	7	9
	Rg	47.62	74.92	54.29	52.83
	Mn	64.38	49.75	58.54	52.83
D.C.	N	6	10	7	9
	Rg	41.41	75.72	11.50	75.72
	Mn	53.59	40.76	51.07	41.52
I.C.	N	6	10	7	9
	Rg	16.79	24.22	16.79	22.51
	Mn	10.42	7.25	4.35	7.84
N. Ch. Ac.	N	6	10	7	9
	Rg	31.31	75.00	59.57	75.00
	Mn	31.97	42.93	34.15	35.00
H.E.	N	6	10	7	9
	Rg	28.48	57.77	57.77	39.58
	Mn	19.76	37.16	21.21	35.85
I.A.	N	6	10	7	9
	Rg	12.71	36.54	14.63	36.54
	Mn	5.57	4.60	4.75	4.76
No Ac.	N	6	10	7	9
	Rg	27.50	17.39	17.39	23.65
	Mn	7.51	6.51	2.86	10.42
D.C. -	N	6	10	7	9
	Rg	2.86	4.76	2.86	4.76
	Mn	0.00	0.00	0.00	0.00

observer started the study ('Old') and those who were invited to join once the study was under way ('New'); as well as which classroom they joined as helpers, Room 1 to Room 6, were all considered.

The group of teachers was sub-divided into the group of 'Old' and that of 'New' teachers; this was assessed at the time the study commenced according to the amount of time they had been involved working at the school. The group which had been at the school longest ('Old') was sub-divided into the "High" and "Low" status groups. These groupings were made according to the headteacher's comments on them. In the first interview the observer had with the headteacher, she referred to certain members of staff as being very good and these made up the "High" status group. The "Low" status group were those whom the headteacher did not refer to in any special way.

It turned out that one teacher in each school was considered by the headteacher as better, or more adequate with the children. In each case it was the older (in terms of age) nursery teacher who was considered to be best.

The group of nursery nurses was sub-divided into those who had been in the school for longer periods ('Old') and those who had joined more recently ('New'). In this group, too, the divisions corresponded with those who appeared to be 'Younger' and 'Older'. No other sub-divisions were considered for this particular group.

Other studies (Tizard et al., 1976a) have also considered other criteria such as general education and social background, apart from those described, when analysing the within group characteristics. As can be seen from Tables 14 and 15, these groups appeared to be rather homogeneous in other respects and, therefore, the observer considered that performing further analyses would be unnecessary. This analysis was done only in descriptive terms as numbers of subjects were

continues from page 143

headteacher were also mothers who joined as helpers when the study commenced. As such, both groups showed scores which overlap to a large extent. It was impossible to reach separate conclusions for the two groups because they were so small. Studying the individual differences was of particular relevance in terms of the time the mothers spent involved directly with the children and the time which they spent not involved in any activity. The sub-group of 'Imposed' mothers spent much more time not involved in any activity than did the group who were 'Accepted' by the teacher, when observed with the teacher present. This extended to the group of mothers when studied in the "alone" condition.

'Accepted' mothers were also the ones who more frequently became involved in activities requiring more direct contact with children. This pattern was observed in both conditions (i.e. when mothers were "alone" and with the teacher).

When comparing the 'New' group with the 'Old', data indicated that there was a considerable variation within both groups, particularly in the time they were observed not involved in any activity. This variability was much higher within the group of 'Imposed' mothers than for the 'Accepted' mothers when seen alone. No differences were observed for the groups in their style of interaction, all of them showing a minimal involvement in negative interaction.

3.3.3. The Nursery Nurses

It was not possible to examine the effects of age independently of the time the nursery nurses were in the school. The older group had also been at the school for longer.

Very little individual variation was observed within either group.

TABLE 16: WITHIN GROUP DIFFERENCES FOR THE NURSERY NURSES

		Old vs. New %	
Ch. Ac.	N	4	4
	Rg	12.68	5.26
	Mn	69.05	60.68
D.C.	N	4	4
	Rg	4.72	8.92
	Mn	50.78	42.52
I.C.	N	4	4
	Rg	7.96	10.98
	Mn	18.00	16.58
N.Ch. Ac.	N	4	4
	Rg	10.71	13.04
	Mn	30.60	42.50
No Ac.	N	4	4
	Rg	15.23	2.57
	Mn	3.28	6.02
D.C.-	N	4	4
	Rg	4.23	3.79
	Mn	8.13	9.01

No conclusions could be drawn because the groups were so small. The 'Younger' group of nursery nurses spent longer than the 'Older' one in those measures examined which entailed indirect contact with children and involvement in non-children-centred activities. This tendency was reversed for activities which meant interaction with children in a direct way, such as working or playing. Both groups had a low score for time spent in no activity at all and the differences, although favouring the 'Older' group, were slight. There was very little difference observed between the groups in style of interaction. The 'Younger' group did however, spend somewhat more time than the 'Older' interacting in a negative way (see Table 16).

3.3.4. Summary

Summarising, the results indicate that differences observed within the groups were scarce. The group of 'Old' teachers were seen to spend longer in activities which meant less overall direct contact with children. The 'Old' group clearly spent more time interacting with adults than did the 'New' one. This difference was especially marked for the condition in which mothers were present. There were very few differences between "High" and "Low" status teachers. The "Low" status group behaved more heterogeneously. Nevertheless, it must be pointed out that they were a larger group; this is shown in Table 12.

The most noticeable feature within the group of mothers was that the 'Imposed' group clearly spent more time not involved in any activity; this was observed in both conditions. The outstanding difference between 'Accepted' and 'Imposed' in terms of actual involvement, was that the former spent longer involved in direct contact with the children.

The time the group of nursery nurses spent in different activities showed that the main difference centred around the fact that the 'Younger' group spent more time in indirect contact with the children, as well as in all non-child-centred activities.

4. Room-to-Room Analysis

The statistical design used was a two variable ANOVA. This was the most suitable for investigating the behaviour of the groups in the different classrooms. In the case when mothers alone and mothers with teachers were compared all subjects under observation were independent across classrooms and each of them was tested under two conditions as a second variable. The number of subjects in both conditions was different across classrooms so the number of mothers had to be reduced. Those studied in each room were randomly selected (Winer, 1971). As such, the design did not contemplate the wide individual variability which was a salient characteristic for the group of mothers, especially when they were observed with the teacher present. Figure 9 , page 157 , shows the differences which were observed between the variability within the whole group (arcsin transformed) and that obtained once the mothers were randomly chosen, within each of the groups. For these reasons, then, the results should be treated with some caution.

ANOVA was also used to investigate the mothers alone and the nursery nurses in the different classrooms and also mothers with teachers and nursery nurses. In this case all subjects were independent across the rooms and each was studied under one condition only. The number of mothers was different for each of the classrooms studied, whereas that of nursery nurses was the same. For this reason, a different procedure to that used when comparing mothers alone and mothers with teachers across rooms was implemented. Hence, the analysis was done according to Winer's (1971) suggestion as to how to deal with unequal numbers within the cells. The same procedure was used when mothers with teachers and nursery nurses were compared across the different classrooms.

4.1. Mothers Alone and Mothers with Teachers

TABLE 17: ANOVA: MOTHERS ALONE AND MOTHERS WITH TEACHERS

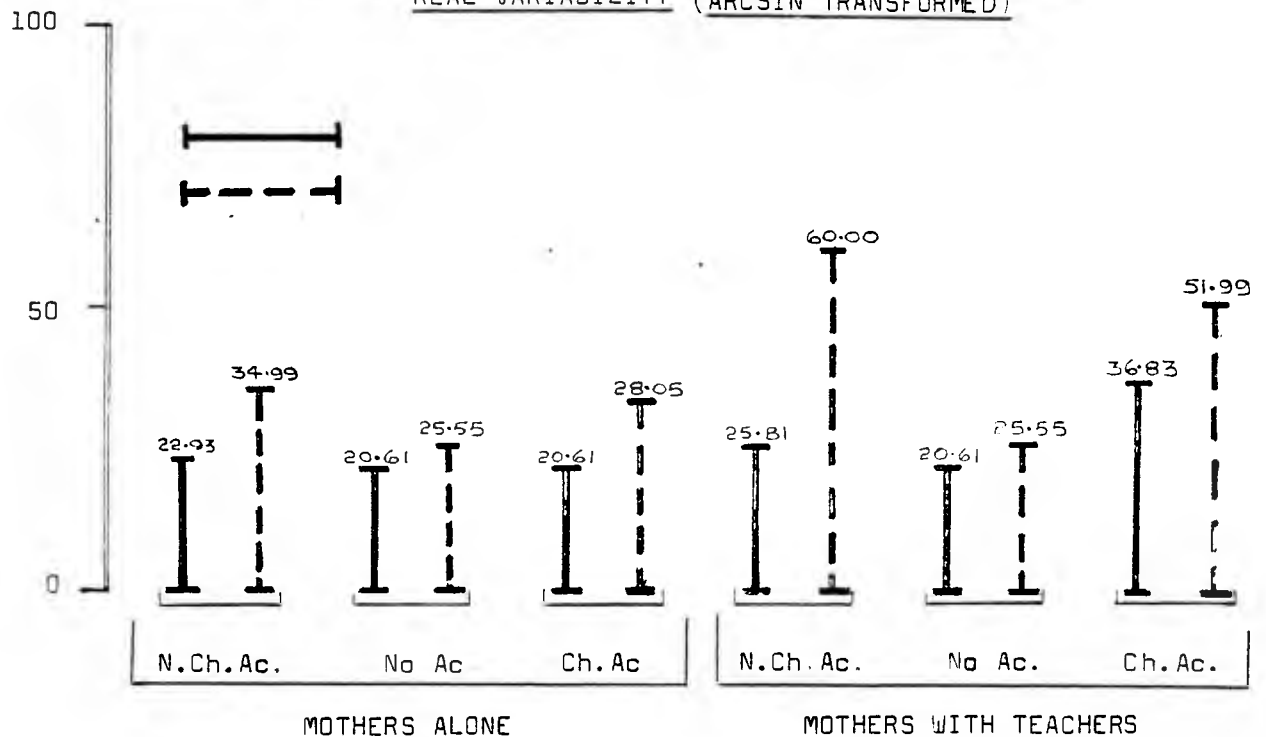
	SS	df	MS	F	
Between Subjects	297.60	7			
A	292.11	3	97.37	70.94	$p < 0.01$
Error _A	5.49	4	1.37		
Within Subjects	186.67	8			
B	40.64	1	40.60	2.19	<i>N.S.</i>
A x B	71.83	3		1.29	<i>N.S.</i>
Error _B	74.20	4	18.55		
Total	484.27	15			

As shown in Table 17 , mothers were studied in four classrooms (a1, a2, a3, a4) and each was observed under two different conditions (b1, b2). This was done in order to investigate (1) whether the

mothers in each classroom behaved differently; (2) whether within the group of mothers they were observed to behave in a different way in the two conditions in which they were studied; (3) to see whether there was an interaction between the room the mothers worked in and the conditions in which they were studied.

The results of the analysis indicated that no differences were observed for the mothers studied in the different classrooms with respect to any of the activities. They did show, however, that differences were observed within the group of mothers when their behaviours were investigated across the two conditions. Scores indicated that the mothers spent a significantly ($F = 70.94$; $p < 0.05$) different amount of time when alone and when with the teacher present with respect to interacting with adults in the room. As would be predicted, the average was higher for the "with teacher" condition.

FIGURE 9: DIAGRAM COMPARING WITHIN GROUP VARIABILITY FOR MOTHERS ALONE AND MOTHERS WITH TEACHERS WHEN USING ANOVA REDUCTIONS AND THE REAL VARIABILITY (ARCSIN TRANSFORMED)



4.2. Mothers and Nursery Nurses

TABLE 18: ANOVA: MOTHERS AND NURSERY NURSES

	SS	df	MS	F	
A	214.12	1	214.12	7.00	$p < 0.05$
B	223.80	3	74.60	2.44	N.S.
AB	26.11	3	8.70	0.28	N.S.
Error (w.cell)	397.98	13	30.61		

Mothers were studied across the different classrooms and they were compared with the nursery nurses normally involved in that room. The analysis was implemented in order to study: (1) whether there were differences between the mothers across the different rooms; (2) whether the group of mothers showed significantly different behaviour to that observed for the group of nursery nurses; (3) whether there was a relationship between the behaviour of mothers and that of nursery nurses within each of the classrooms.

No differences were found for the group of mothers across the classrooms nor for the group of nursery nurses. However, when the analysis was centred on whether mothers differed in their amount of involvement when compared with that of nursery nurses, a significant difference emerged. Mothers appeared to spend significantly ($F = 7.00$; $p < 0.05$) more time not involved in any activity than did nursery nurses. No other significant differences were observed between the groups for the rest of the activities.

4.3. Mothers with Teachers and Nursery Nurses

TABLE 19: ANOVA: MOTHERS WITH TEACHERS AND NURSERY NURSES

	SS	df	MS	F	
A	2514.26	1	2514.26	33.43	$p < 0.05$
B	148.69	3	49.56	0.66	N.S.
AB	304.80	3	101.60	1.35	N.S.
Error (w.cell)	977.71	13	75.21		

Once again differences for mothers were not observed to occur as a result of having been observed in the different classrooms. The same applied to nursery nurses. Significant ($F = 33.43$; $p < 0.01$) differences were found between the two groups in relation to time spent in "No Activity". Mothers were seen not involved in any activity for significantly longer periods than were nursery nurses. No other significant differences were observed.

5. Analyses of the Correlations found between the Time Spent in the Different Activities Studied

Previous work (Tizard et al., 1972) reported that when analysing the behaviour of the staff with young children in long stay residential nurseries, they found an inverse relation between the time spent by the staff in negative control or in minimal supervision with the children and the language development observed in the same children. They describe the same sort of relationship between dealing with play equipment and language development. Since, in this study the interest was also centred on finding relationships between the time spent in the different activities, a correlational analysis was implemented. This was done for the five conditions studied, i.e. mothers alone, mothers with teachers, teachers alone, teachers with mothers, nursery nurses.

In the present analyses the percentages of involvement found for the different subjects were studied using Spearman Rank correlation coefficient. The categories of behaviour are listed in Appendix IV page 282 , together with the correlations obtained for each group of subjects. Reference will only be made to those correlations which were found to reach a significant level.

Time spent dealing with equipment and that in direct contact with the children was found to be the one significant negative relationship in all conditions (see Table 20, page 162). A significant negative correlation was also found between time spent interacting with adults and direct contact with children; this was found for mothers with teachers and teachers with mothers. Only for teachers, when alone and when with mothers, time spent involved directly with the children presented a significant negative correlation with that spent in indirect contact. When alone, the time the mothers spent involved both directly and

indirectly with the children showed a significant negative correlation with that spent not involved in any activity. When mothers were observed with the teacher present the time interacting with other adults in the room showed a significant negative correlation with that dealing with equipment. The same sort of correlation was observed for the time nursery nurses spent dealing with equipment and that in indirect contact with the children.

The most important of all these findings is the one indicating that time spent by adults in dealing with equipment is negatively correlated across all conditions with that spent in direct contact with the children. These results are comparable to those of Tizard J. & Tizard (1971).

TABLE 20: CORRELATIONS FOUND BETWEEN THE DIFFERENT ACTIVITIES STUDIED

TEACHERS

	I.C.	H.E.	I.A.	No Ac.
D.C.	-0.63*	-0.70*	-0.18	-
I.C.		0.17	0.42	-
H.E.			-0.32	-
I.A.				

* p < .05

** p < .01

TEACHERS WITH MOTHERS

	I.C.	H.E.	I.A.	No Ac.
D.C.	-0.63**	-0.63**	-0.69**	-
I.C.		0.06	0.34	-
H.E.			0.11	-
I.A.				

* p < .05

** p < .01

MOTHERS WITH TEACHERS

	I.C.	H.E.	I.A.	No Ac.
D.C.	0.24	** -0.87	** -0.63	-0.17
I.C.		* -0.42	* -0.42	-0.11
H.E.			* 0.51	-0.03
I.A.				-0.03

* p < .05

** p < .01

MOTHERS

	I.C.	H.E.	I.A.	No Ac.
D.C.	-0.34	** -0.74	-0.30	-0.07
I.C.		-0.10	-0.13	0.04
H.E.			0.32	-0.08
I.A.				-0.35

* p < .01

** p < .05

NURSERY NURSES

	I.C.	H.E.	I.A.	No Ac.
D.C.	0.48	** -0.90	-0.33	0.13
I.C.		-0.71		-0.11
H.E.			0.17	-0.05

* p < 0.01

**p < 0.05

CHAPTER 6: AN ANALYSIS OF THE AMOUNT OF ATTENTION RECEIVED BY THE "OWN"
CHILD IN THE DIFFERENT CONDITIONS STUDIED

1. The Two Stage Analysis

1.1. Descriptive Stage

During the data collection note was taken of whether the activities took place only with the "Own" child, with the other children and/or with the "Own" plus the rest of the children in the classroom. The nature of the involvement was also considered, i.e. whether the contact was of a close or direct nature or of a more indirect type. When observations noted mixed groups of children ("Own" plus other children), the units were coded according to the same procedure used when observing only the "other children".

The nature of the observational method used prevented the observer from obtaining information as to who started the interaction (i.e. whether the mother approached the child or vice versa). The measures described refer to amount of time they were observed together irrespective of who sought the company of whom.

The same coding priority criteria which had been used to study the involvement of the adults in the child-centred activities were used in this analysis.

Percentages were computed for time spent on the "Own" child in the following way:

$$\frac{\text{TOTAL OBSERVATION PERIODS "OWN" CHILD}}{\text{TOTAL OBSERVATION PERIODS}} \times 100$$

For all symbols used in tables, refer to KEY of activities, page 319.

1.1.1. Nature and Extent of the Teachers' Involvement with the "Own" Child

TABLE 21: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY TEACHERS ALONE WITH THE "OWN" CHILD

	Mn	Mode	\bar{X}	Range
Ch.Ac.	1.77	0.00	2.44	9.30
D.C.	0.00	0.00	1.80	9.30
I.C.	0.00	0.00	0.64	4.17
DC+	0.00	0.00	1.74	9.30
DC-	0.00	0.00	0.07	1.20

When teachers were alone they were observed to spend somewhat less than 2% of their total time with the group of "Own" children, but what time they did spend was somewhat longer for close or direct relationships with the children than indirect contact.

When the mothers were present, time spent with these children was reduced and became more indirect in nature.

1.1.2. Nature and Extent of the Mothers' Involvement with the "Own" Child

When alone, the group of mothers spent about 8% of their time in activities with their "Own" children and this was predominantly in close or direct interaction. Each mother spent a different amount of time with their child and as a result of which a wide spectrum of behaviours was observed for the group.

TABLE 22: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY TEACHERS WITH MOTHERS WITH THE "OWN" CHILD

	Mn	Mode	\bar{X}	Range
Ch. Ac.	0.00	0.00	1.96	12.20
D.C.	0.00	0.00	0.79	4.88
I.C.	0.00	0.00	1.20	7.32
DC+	0.00	0.00	0.56	4.88
DC-	0.00	0.00	0.23	1.96

TABLE 24: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY MOTHERS WITH TEACHERS WITH THE "OWN" CHILD

	Md	Mode	Range	\bar{X}	\bar{X} (Arc Sine)	σ^2	σ
Ch.Ac.	10.46	7.14	61.90	17.44		175.93	13.26
D.C.	6.88	2.08	35.71	12.70	15.72	120.82	10.99
I.C.	0.00	1.48	26.19	3.10	6.06	71.13	8.43

TABLE 23: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY MOTHERS ALONE WITH THE "OWN" CHILD

	Md	Mode	Range	\bar{X}	\bar{X} (Arc Sine)	σ^2	σ
Ch.Ac.	8.04	4.68	22.45	9.13	11.99	74.22	8.62
D.C.	6.88	2.08	35.71	7.16	13.43	64.45	8.03
I.C.	1.74	1.32	9.43	2.57	7.66	25.78	5.08

When the teachers were present the time spent with their "Own" children rose to 10%. In this condition they spent more than double in direct contact than in indirect contact. Once again, mothers' behaviour differed from one to another.

1.1.3. Nature and Extent of the Nursery Nurses Involvement
with the "Own" Child

TABLE 25: SUMMARY STATISTICS OF PERCENTAGE OF TIME SPENT BY NURSERY
NURSES WITH THE "OWN" CHILD

	Mn	Mode	\bar{X}	Range
Ch.Ac.	0.98	0.00	3.00	10.08
D.C.	0.98	0.00	1.77	7.56
I.C.	0.34	0.00	1.23	6.04
DC+	0.98	0.00	1.68	7.56
DC-	0.00	0.00	0.08	1.34

This group spent i interacting with the group of "Own" children, i.e. nearly 1%. For most of this they were involved in activities of a direct nature.

1.2. Comparative Stage

In order to study whether there were differences between four of the conditions (mother alone, mothers with teachers, teachers alone and teachers with mothers) in which each of the "Own" children was observed, a two variable ANOVA was carried out (see Table 26 and 27). Each of the "Own" children was studied under these four conditions. As in all other cases in which ANOVA has been used, the data were transformed using arcsin transformations (Winer, 1971). The group of nursery nurses had to be omitted because the characteristics of the data for this group were not suitable for the statistical analysis.

In those cases in which there were large within group differences the analysis continued further and F-tests were calculated (Guilford & Fruchter, 1978).

The way in which the group of "Own" children was divided according to the characteristics described in Section 1.3. resulted in the number of children in the groups being quite different and statistical testing is not appropriate in such cases (Plewis, I., personal communication, 1979). Once the data were organised in this way only descriptive measures were used.

1.2.1. A Comparative Analysis of Time received by the "Own"
Children from Mothers and Teachers

A comparison was carried out in order to investigate:

- (1) Whether children were receiving different amounts of attention in the different conditions,
- (2) Whether the two groups (mothers and teachers) behaved in a different way across the two conditions (alone and in pairs),
- (3) Whether a relationship existed between the conditions in which each adult was studied and the group they belonged to.

This analysis was done in order to study amount of direct as well as indirect contact. Negative interaction was not analysed because it was so infrequent. The results for direct contact indicated a tendency for mothers to spend significantly ($F = 25.08$; $p < 0.01$) more time with the group of "Own" children than did the teachers (see Table 26). The data also showed that the presence of the teacher did not have a substantial effect on the time the mothers spent with this group. It

can be concluded, therefore, that time devoted to the "Own" child was not dependent upon conditions (alone or in pairs) but only on differences found between the mothers and teachers. This same significant ($F = 6.22$; $p < 0.05$) difference was obtained when the analysis was based on indirect contact (see Table 27).

1.2.2. A Comparative Analysis of Time spent by Mothers with their "Own" Children when Alone and when with the Teacher present

As the amount of time spent by mothers as a group in direct contact with the children did not differ significantly when they were alone or with teacher, it was thought important to see whether mothers who spent more time with their "Own" children were also those who spent longer with them when the teacher was present. A correlational analysis (Spearman Rho) was carried out but no significant correlations were found, indicating no predictability across situations.

The same analysis was implemented with respect to time spent by mothers in indirect contact with the children. Again, no relationships were found.

Further investigation was undertaken to discover if differences in the children could account for the lack of correlation and the wide within group variance in the behaviour of their mothers.

1.2.3. A Comparative Analysis of Time spent by Nursery Nurses with the "Own" Child with respect to Teachers and Mothers

Compared with the teachers, the nursery nurses spent almost the same time with the "Own" children.

TABLE 26: ANOVA: TIME RECEIVED BY THE "OWN" CHILDREN FROM MOTHERS AND TEACHERS (DIRECT CONTACT)

	SS	df	MS	F	
A	1686.86	1	1686.86	25.08	$p < 0.05$
B	0.05	1	0.05	0.00	N.S.
Subjects	1141.09	13	87.78		
AB	51.09	1	51.09	1.51	N.S.
A Subj.	874.20	13	67.25		
B Subj.	370.33	13	28.49		
AB Subj.	439.89	13	33.84		
Total	4563.51	55			

TABLE 27: ANOVA: TIME RECEIVED BY THE "OWN" CHILDREN FROM MOTHERS AND TEACHERS (INDIRECT CONTACT)

	SS	df	MS	F	
A	287.70	1	287.70	6.22	$p < 0.05$
B	0.92	1	0.92	0.03	N.S.
Subjects	563.93	13			
AB	0.00	1	0.00	0.00	N.S.
A Subj.	601.32	13	46.26		
B Subj.	400.74	13	30.83		
AB Subj.	455.76	13	35.84		
Total	2310.37	55			

1.2.4. Summary

Understandably, mothers were the ones who spent longest with the "Own" child. This time was increased when the teacher was present. As initiative of interaction between mother and child could not be studied, it would be inaccurate at this point to carry the analysis any further. Teachers devoted very little time to the "Own" children and even less to them when the mothers were present. This could result from the fact that children would naturally turn to their mother if she were there. However, that cannot be assumed, because it could have been that the mothers, for whatever reason, approached the child more frequently when the teacher was present. When mothers were present teachers spent less time with the children.

2. Identifying Sub-Group Differences

One of the aims of this study was to provide descriptive information on the nature and extent of the attention the "Own" child received from the adults in the five conditions observed. The main purpose of this was to investigate the extent to which children (whose mothers were working in the classroom) and their mothers were affected by each other's presence. As has been described, differences were found between teachers and mothers in terms of the time they spent together with each "Own" child. As expected, mothers were observed together with their "Own" child for longer (alone and with the teacher) than were teachers and nursery nurses.

Until now, the time spent with children has been described in terms of average times (median percentages) for groups. No attention has yet been given to the ways in which each child or different sub-groups of "Own" children were affected by the presence of the mother, nor to the effect each child had on its mother, nor how mothers' attitudes differed because of their children's characteristics. Mothers had diverse histories (see Appendix No. II, page 227) and the children too presented differences (see Table 2 , page 91), which could influence their behaviour. These comments indicate that a number of individual differences between the subjects' characteristics were manifest. Investigation of these can provide further understanding of the dynamics of incorporating mothers in pre-school settings and may lead to a better understanding of which children and mothers are more and which are less affected by the other's presence. At no point was it possible to disentangle the effect of the children's characteristics (e.g. age) from mothers' attitudes (e.g. if they showed a preference, was it for older or younger children?). Despite this limitation it was thought interesting to identify sub-group differences.

In order to carry out these analyses, children were regrouped according to three characteristics, all of which were easily identifiable, sex, ordinal position and age. In Chapter 1 reference was made to studies indicating that boys differ from girls in the way they relate to their mothers as well as to the teachers. Rutter & Madge (1976) give ample evidence indicating that parents tend to differ in terms of the sort of interaction they have with their second child compared to the way in which they interact with the first, hence the use of ordinal position. The third comparison contrasted the 'Younger' and 'Older' children. The younger children in the classrooms had been attending the pre-school for a shorter period than had the older ones. This could be important in terms of whether these two groups of children would react differently to the mothers' presence, and would also enable one to see whether mothers present a different reaction according to the age of their child. With respect to age the research literature indicates that children behave differently with teachers according to their age. Smith & Connolly (1972) have reported that older children would address teachers less frequently.

In order to study whether it was just the mother's presence which acted as the stimulus giving rise to a particular type of interaction, or whether a common pattern of behaviours emerged across the mothers and teachers, both groups were compared in both the conditions in which they were studied, i.e. alone and with the other adult present. The analysis only considered direct interaction of a positive nature. Negative interaction was not analysed because it was so infrequent. The same applied to indirect interaction. Table 28, indicates the amount of time spent in direct contact of a positive nature with the group of "Own" children.

TABLE 28: SUMMARY STATISTICS OF TIME SPENT IN DIRECT INTERACTION WITH THE "OWN" CHILD BY ALL GROUPS

	'Older' vs. 'Younger'		'Girls' vs. 'Boys'		'Only' vs. 'Not Only'	
	%		%		%	
N	10	6	3	13	5	11
T Rg	3.61	3.53	2.41	3.61	3.61	3.61
Mn	0.59	0.00	0.00	0.00	1.81	0.00
N	10	6	3	13	5	11
TuM Rg	2.17	4.88	0.00	4.88	4.88	2.17
Mn	0.00	0.00	0.00	0.00	0.00	0.00
N	10	4	3	11	5	9
M Rg	14.42	14.20	18.37	14.42	10.00	18.37
Mn	7.32	4.98	9.09	7.09	2.33	7.55
N	10	6	3	13	5	11
MwT Rg	25.00	30.46	33.33	25.00	10.64	31.44
Mn	3.15	8.61	17.31	5.88	3.85	8.33

2.1. 'Younger' versus 'Older' Children

Did the 'Younger' children spend more time with the mother than with the teacher? Did the 'Younger' children receive more attention from their mothers than the 'Older' ones?

The 'Younger' children were found to spend somewhat less time with the teacher than did the 'Older' ones. There were minimal differences in terms of time of attention from the teacher when she was alone and when with the mother. The 'Older' children spent almost double the time the 'Younger' ones did with their mothers when alone. The opposite was found when the mothers were with the teachers in the room. Large differences were observed in both 'Older' and 'Younger' children both when the mother was alone and when she was with the teacher.

2.2. 'Only' Child versus 'Not Only' Child

Did 'Only' children spend more time with the teachers? Were these children receiving more attention from their mothers?

On the whole, when the teachers were alone they spent double the amount of time with the group of 'Only' children than when with children who had siblings. When mothers were present teachers also spent more time with 'Only' children than with the children who had siblings.

Analysing the data in more detail, it was found that although the overall measures indicate that teachers spent more time with the 'Only' children, the existence of individual differences could lead to misleading conclusions. Therefore, a more detailed analysis was made. This indicated that the amount of time spent by teachers was not evenly distributed across all children, in the "alone" condition, but was concentrated on three out of five children. When the analysis was done for the teachers with mother condition, the whole of the time was spent with one child. This child did not receive any attention when the teacher

was alone.

In terms of overall average measures (median percentages), mothers spent their time in the reverse way to the teachers; that is, they spent more time with the group of 'Not Only' children in both the conditions studied. At a more individual level, although their scores were very varied, especially in the time spent with the 'Not Only' child, nearly all children from both groups were spending at least some time with their mother.

2.3. Girls versus Boys

How did teachers spend their time in relation to the sex of the "Own" child? Were mothers spending their time in the same way as teachers?

The average percentage of teachers' time was only slightly higher for boys than for girls in both conditions. The reverse was true for mothers, who were seen to spend on average more time with girls in both conditions.

2.4. Summary

When considering average scores, overall mothers and teachers showed preference for opposite sub-groups. However, both groups showed somewhat stable results across the conditions meaning that the choice remained almost constant irrespective of the conditions, e.g. teachers concentrated more time on 'Only' children when they were observed alone and when the mother was present.

P A R T I V : D I S C U S S I O N

CHAPTER 7: DISCUSSION OF FINDINGS

1. Introduction

This research explored the processes which take place within pre-school settings when mothers are working in the classrooms. The intention was not merely an exploration of the dynamics in these settings, but was basically socially orientated. It sought alternatives for the existing modes of provision for pre-school children. Via Heber et al. (1976) and Evans (1975) it was recognised that school or intensive short programmes not involving family have a limited efficacy. In any case, there are scarce resources and given the relevance attached to individual-centred education, the achievement of a better staff:child ratio is considered to be an important factor. However, improving the ratio would not be an answer in itself. Other aspects of equal significance are the social organisation of the setting and the adults' view of their role within it (Tizard^J et al., 1976; 1976a), as is the belief that the inclusion of working-class mothers would assist disadvantaged children in feeling more familiar with the atmosphere (Cazden, 1972).

It is a widely held view that pre-schools can be a form of 'compensation' for those children who are born and raised under socially and culturally disadvantageous conditions (Halsey, 1972; Evans, 1975). It has been thought that this experience could prepare them for a better start at primary school, equalling that of middle-class children. This opinion, although debatable, has been held for the last two decades and there is still in some psychological and educational sectors, a tendency to regard pre-school experience as associated with greater success in later schooling (Halsey, 1980).

Results obtained up to now have shown that the current pre-school provision is not the answer to all the needs of the working-class child. This could be due to the fact that the methods used are based on good intentions rather than on a thorough analysis of the underlying characteristics of disadvantaged children, staff, settings and curriculum. On the whole, these methods appear to be inadequate for compensatory purposes and largely based on middle-class ideology (Tizard et al., 1980; Woodhead, 1979).

It is extensively believed (Midwinter, 1972) that priority should be given to working-class children in terms of giving them places in these programmes. In order that these children should gain the maximum benefit, consideration should be given to their special needs (Evans, 1975; Levenstein, 1971). It is a matter of concern for educationalists that the majority of children attending pre-schools are most likely to come from working-class families, but up to now programmes have been designed along lines which are more in accordance with the characteristics of middle-class children. To what extent working-class children would really benefit from any alterations to the set-up is not yet known. This is a matter requiring further analysis. The present study was designed bearing in mind this idea.

The use of mothers is an important potential resource. They have a major role in the day-to-day care and education of their children and are, therefore in a good position to understand and meet their needs. In other programmes using mothers as para-professionals like the home-visiting ones (Levenstein, 1977; Midwinter, 1972) the results achieved are better and have a longer lasting effect than projects which do not utilise them.

The present study has therefore set out to investigate the role of working-class mothers involved as para-professionals in pre-school

settings. It was carried out in two pre-schools (6 different classrooms) located in socially deprived areas. By examining all the adults working in these settings (teachers, nursery nurses and mothers) it has been possible to compare and contrast the role of mothers with those of teachers and nursery nurses. This has led to information on the deployment of para-professionals, an aspect which although extensively discussed and suggested as an adjunct (Nedler & McAfee, 1975; Honig, 1972; Tizard, J., 1972) to the existing provision, has not yet been studied in the manner of this project.

The way in which the research was carried out has made it possible to gain information on both staff and mothers' behaviours which constituted the core of the study. Furthermore, exploring sub-groups and identifying their differences enables a deeper understanding of the more individually based characteristics within each of the groups. The way in which the research was designed, and the use of the method of naturalistic observation suited the aim of the study: to find similarities and differences between the staff and mothers in the day-to-day flow of activities in the different classroom settings. As a result, it was hoped to minimise problems such as obtrusiveness of the researcher's presence (Johnson & Solstad, 1973) and artificiality of the purpose-built settings which are the usual shortcomings of experimental studies (Webb et al., 1966). It can be said that there is a tendency for experimental studies to produce biased information (Rosenthal, 1970). Using a naturalistic 'experiment' enabled a comparison to be made between the behaviour of mothers and teachers when alone and when together. This resulted in additional information related to the way in which the presence of one affected the other.

The naturalistic observational method, as is also the case with other psychological instruments (Anastasi, 1968), provides a sample of

the behaviour and does not, and cannot, be a complete picture of all that happens (Jones et al., 1975). The observation was centred on the activities in which the adults studied were involved. The description of these activities was designed after the pilot stage was finished and they were thought of not only as indicative of what took place in the classrooms, but also as representative of all aspects which could be examined using this method. These provided the sort of information required for this study and also made possible an evaluation which was as unobtrusive as is possible in a study of this nature.

All participants were unaware of being under observation. Both staff and mothers were informed that the "Own" child was the target of the investigation and that the objective was to explore the effect of the mothers' presence on the child's behaviour. For this reason mothers were only observed in the room in which their child attended and this enabled collection of information on the effect each had on the other. Consequently, when analysing the mothers' scores, there were two different approaches. The first considered the time spent with all children, whereas in the second, the time with the "Own" child was omitted.

On the whole, research work in this area has considered language to be an important variable (Hess & Shipman, 1965, 1967, 1968). However, due to the way in which the study was carried out, it was not possible to include it. Although initially the intention was to study language, soon after the commencement of the pilot stage the idea was dropped because the goal was to maintain the most natural setting possible. This has to be regarded as a limitation to this research. If language were to be considered this would have caused a further obtrusiveness and this would have altered the nature of the study. Throughout the whole of the study, there was only one observer available

(apart from reliability assessments), who gathered all the information. The researcher decided that following the adults around would have been misleading because they were unaware of being under observation. Therefore, although activities could be seen without interfering, language could not be heard clearly enough. It is also thought that by studying activities, much valuable information was obtained on the similarities and dissimilarities between mothers and staff. This would have been lost if the natural setting was disrupted.

The spontaneity of the mothers would have been affected if they had been observed in classrooms other than the one which their "Own" child attended. Consequently, the mothers' behaviour with, and without the "Own" child in the room could not be compared. Therefore, this dimension was omitted, and no information was collected on what mothers would have done in the other rooms with the time they devoted to their "Own" children.

It must be recognised that the classroom setting is quite alien to the mothers and therefore, they go through a different experience to that of staff. Accordingly, it cannot be assumed that the involvement in certain activities necessarily has the same meaning for the three groups. Among other factors the way in which each of them assume their role in the settings as well as the past experiences they have gone through sheds a different light on whatever activity they become involved in.

2. Discussion on Findings

With respect to the findings of the present study, data indicated that all groups spent longer in child-focussed activities than they did in other activities. This study coincides with others (Tizard et al., 1976a)

in that the majority of the time spent in contact with children was in interaction of a direct nature. It would be expected that, due to their training, teachers and nursery nurses should distribute their time in this way. However, it was very striking to discover that mothers also followed this pattern.

An interesting finding with respect to time devoted to the various activities was that for the most part, group differences (i.e. mothers, teachers, and nursery nurses) were either very small or nonexistent. This was true for time spent in indirect contact with children, dealing with equipment, doing housework and interacting with adults. The same applied to the amount of time spent in negative interaction.

Although it is noteworthy to find that mothers spent almost the same amount of time as the other two groups in non-child focussed activities; this could be accounted for by the fact that such activities parallel those in which they would be involved at home. It should also be borne in mind that no training is required for proficiency in these activities and mothers would probably feel helpful without thinking they were hindering the teacher in any way.

The above findings are undoubtedly of great importance, but the fact that mothers spent the same amount of time in indirect contact is even more important still. It could be attributed to the fact that the nature of these activities (e.g. doing up shoe-laces, supervising the milk-break) induces spontaneous assistance.

With respect to direct contact, all groups showed similar results when the time spent by the mother with all children was considered, whereas when time with the "Own" child was disregarded, mothers spent significantly less time than the other groups in this activity. No data were obtained for mothers' time without the "Own" child, and therefore it was not possible to infer how they would have used the extra

time. Despite the fact mothers spent significantly less time than the other staff in direct contact, when the time with their "Own" child was disregarded they still devoted more time to this activity than they did to any other. This assertion has the potential to be developed to improve the conditions under which the programmes of mother-involvement are run. These results could have been different if the mothers had been allocated a specific role (this will be explained in more detail under "Sub-Group Differences"), or else had received preparation or tutoring. To be successful, this training would have had to stress the importance for the child of individual attention. It has been suggested (Bereiter, 1978; Ambron, 1977) that structured settings are bound to encourage staff to spend more beneficial time with individual children. Although research has not considered mothers, it can be assumed, because of the directiveness of a structured setting, this would be even more pertinent to the group of mothers.

Although on the basis of the overall data, the time spent in child-focussed activities is reassuring, this is misleading because when examining time spent by teachers and nursery nurses in direct contact with individuals, this study shows that less than 2% (median %) is devoted to children. This finding is reiterated in other studies (Tizard et al., 1976b) which show that not more than 2% is spent by the staff working directly with each child. Without a detailed analysis these results could give the wrong impression because of the wide individual variation between the children found both in this study and that of Tizard and her colleagues (1976c). The data show that some children retained the staff's attention for long periods, whereas others were never seen in contact with them. This proves the need for the structured programmes referred to above, which attempt to ensure that all children receive similar amounts of attention and prevent some being

totally ignored. Initiation of interaction was an aspect not covered in the study and so it is not known whether the teachers favoured certain children or whether some children approached them more often. For example, studies have pointed out that certain teachers favour girls rather than boys (Biber et al., 1972; Serbin et al., 1973).

Considerable between-group differences were observed for time spent wandering around the room. With regard to the mothers significantly higher scores were obtained than for the other groups. When teachers were present, mothers spent longer not involved in any activity than when alone. The fact that certain mothers could at some points spend long spells of time wandering in the room is not beneficial, either to children or to the mothers. Researchers (Tulkin & Kagan, 1972) have argued that working-class parents fail to see their role as an educational one and they believe that including them in pre-school programmes would change their self-image, as a result of which their attitude towards their children would improve and better outcomes could be attained. It is the belief of this researcher that if mothers are not assigned a clear role, no changes can be expected by having them coming in to the classroom, but on the contrary perhaps, it would reinforce the existing poor image they had of themselves. If supervision or support is given, better results should be obtained, but as it has been argued elsewhere (Tizard^{J.} et al., 1976), this will only help if they are assigned a place or feel their presence is to some extent of real value to staff and children. This idea is considered further below.

Having sub-divided the groups, more information was gained. The mothers' direct interaction and wandering within the room were found to be associated with how they had joined the school and bore no relation to which room they were in, nor to how long they had helped. The group

of mothers was subdivided into those invited by the teachers and those invited by the headteachers. The headteachers invited certain mothers after the commencement of the study. Although the present researcher was never informed of the real reason behind these invitations, it could have been that the headteachers felt motivated by the study. Why these particular mothers were selected is also unknown. Data indicate that those mothers who had been invited by the teachers appeared more adequate to the children's requirements. This could be because teachers would probably only invite mothers whom they thought would be suitable. This result is particularly interesting in the light of other research. It has been argued that if no specific role is assigned to voluntary helpers, their presence is of no special significance. This could, therefore, apply to those being invited receiving more encouragement and those whom the teachers felt had been imposed, receiving less.

Data show that in this study the more time mothers spent wandering around the room, the less they devoted to children, both of a direct and indirect nature. The same applies to dealing with equipment and direct contact with children. Therefore, unless teachers are convinced that mothers have an important role to play and encourage them to participate in the classroom, they will always remain as second-rate helpers.

The educational implications of these findings are that real benefit would only be achieved if the headteachers and, even more so the teachers, are willing to consider that mothers can offer assistance in every respect. Literature shows that some teachers have been unwilling to accept this (Nedler & McAfee, 1979). It is still necessary to impress this idea on the minds of the teaching profession. This must be insisted upon if programmes are to benefit disadvantaged children.

Wide within-group differences were observed for teachers, nursery nurses and mothers; but this variability was particularly marked for the group of mothers and in many activities it reached a significant level when compared with the variability observed for the other groups. There are probably several reasons for the wide spectrum of behaviours observed for the mothers. They were untrained and inexperienced. Due to the lack of structure in these free-play settings, they were left to their own devices. It was surprising to find that the mothers' behaviour varied even more when the teacher was present. It could be thought that the teacher's presence did not act as a motivational force inducing imitative behaviour. This is assumed because when the teacher was present the mothers' behaviour as a group varied even more, they spent less time in direct contact and longer wandering in the room. The individual differences observed also indicate that in future, programmes of this nature, unless they are clearly structured, should give consideration to aspects such as willingness of teachers to have particular mothers. It was found that individual characteristics (e.g. the way in which they became involved as para-professionals) had more bearing than other influences such as the different conditions in which mothers were observed, i.e. alone or with the teacher. This derives from data indicating that mothers' behaviour showed stability across conditions. Individual characteristics of mothers are even more important in traditional free-play settings. In such settings, activities are dependent on mothers' initiative. The literature has described these settings as alien to working-class mothers and therefore it could be assumed that they would be uncondusive to stimulating initiative. Lack of structure within settings together with absence of training and supervision are bound to give rise to individual characteristics and the result of the programme will then rely on individuals rather than on groups and/or settings.

So far the discussion has centred on the involvement of the different adults. This section will relate more to the effect the mothers' presence had on their children. This study did not cover the initiation of interaction. Data obtained reflect the time mother and child spent together irrespective of who approached whom, i.e. whether it was the child who approached the mother or the mother who approached the child. A deeper analysis of initiation of interaction would give a fuller understanding as to the way in which one affected the other. This is a matter requiring further research if mothers are to be brought into their "Own" children's classrooms. The data gathered from the present study indicate that as a group, mothers spent significantly more time with their children than did teachers. The time mother and child spent together remained the same irrespective of the classroom they worked in or the condition in which they were observed, i.e. alone or with the teacher. With respect to the latter, mothers spent somewhat longer with their "Own" child when the teachers were in the room. As a group, mothers spent about 2% (median %) more time with their children when teachers were present. Contrary to expectations, data indicate that those mothers who spent longer in one condition, were not those who spent longer in the other. Once again, this could indicate that the teacher's presence affected individual mothers to a different extent. It is plausible to think that if the interactions with the "Own" child were to be started by the mothers and not the child, this could perhaps be altered by having a more structured programme or supervising mothers more closely. However, if the majority of interactions were sought by the child, the problem would be of a different nature. This could perhaps imply that in these cases further attention ought to be given to the child's characteristics prior to deciding in which room the mothers should be included, if at all.

Did the presence of the mothers have an adverse effect on the time

teachers spent with the "Own" children? It will not be possible to give a clear-cut reply to this. Differences between the time the teachers spent with each individual child were very great and a tendency was observed for them to concentrate on only a few children. Numbers are too small for any generalisation to be made and because of the importance of analysing the effect the mothers' presence had, this is an aspect which is worthy of future research. However, from the obtained data it cannot be deduced that the group of "Own" children were negatively affected by the mothers' presence. The teachers gave on average, even less attention to the group of "Own" children when their mothers were there. However, the recipients of this attention varied according to the teacher and child involved.

Having sub-divided the group of "Own" children some interesting findings were observed. A cautious analysis should be made of these results as a global assessment alone could be misleading because of the large variability observed between the time each individual "Own" child received from the different adults. Although when groups of children were sub-divided ('Older' versus 'Younger'; Girls versus Boys; 'Only' versus 'Not Only') on the whole teachers concentrated their attention on the opposite groups to those preferred by mothers. Teachers were observed to concentrate their time on just few of the "Own" children; whereas the reverse was true for mothers, each of whom spent at least some time with nearly all "Own" children.

With respect to the age of the "Own" children, no clear conclusions can be drawn at this stage. Teachers showed no clear preference for either of the groups across conditions (i.e. alone and with mother present). In the "alone" condition mothers spent more time with the 'Older' group of children. When the teacher was present they spent longer with the 'Younger' ones. It could be suggested that more time should elapse

between the entry of the children and that of the mothers into the same setting. In this way, by the time the mothers joined, the children would have become familiar with the settings. However, this is an aspect which could perhaps be looked at from another viewpoint. That is the argument that by leaving mothers in the settings for longer, the process of separation from them would be easier although take longer. This was the case with Leach's study (1972) in which she found that "bad separators" took longer to adapt to the settings.

It has been pointed out that teachers tend to spend more time with girls (Fagot, 1978). Some researchers argue that this is due to the girls' attitude towards mainly female teachers (Blurton-Jones, 1972), whereas others (Tizard et al., 1976b) suggest that this can in fact be a consequence of the feminine orientation of the settings. However, in the present study the teachers spent somewhat more time with boys than with girls in both the conditions in which they were studied (i.e. alone and with mother). Due to the smallness of the sample however, no strong conclusions can be made. Also, teachers tended to concentrate their time on a few boys. Data, in this case, may then be referring more to individual characteristics of certain boys than to differences assigned by teachers according to the sex of the children.

Mothers, when alone and when with the teacher present, were observed to spend more time with girls. However, some time was spent by them with boys as well. This relative girl preference might be understandable according to what the literature has said about mothers spending more time with their daughters in the sorts of activities which they would be bound to encounter in pre-school settings, such as conversing and playing (Goldberg & Lewis, 1969). It could be thought that mothers, as do teachers, would feel more attracted towards the more "feminine" nature of the equipment. Consequently they would spontaneously approach this equipment and therefore more time with girls would be found.

The lack of avowed educational aims (present in both the pre-schools studied) is also bound to produce less time with children for all adults concerned and could also be thought of as strengthening individuality.

A more homogeneous pattern of behaviour was observed for the groups of teachers and nursery nurses. Teachers had the opposite reaction to the mothers' presence, in that they were only moderately affected by the mothers' presence. This is evident because their behaviour became more homogeneous when mothers were present. This could be accounted for by the training staff have received and the duration of their experience with children. The training of teachers has been described as conducive to an attitude of "professionalism" (Honig, 1972). If parents become involved with teachers who are unwilling to accept them it results in the reverse of the desired effect, that is they could easily contribute to the "isolation of already alienated parents" (Honig, 1972; page 5).

Of interest to this study is Winetsky's (1978) conclusion that if any sort of equilibrium between parents' and teachers' expectations for the child is to be reached, teachers must be prepared to change their attitudes towards working-class values. To achieve this goal and assume a different atmosphere in the pre-school, teachers must change their attitudes towards minority groups or more working-class and non-English teachers must be trained and employed. Winetsky maintains that if the role (or act of becoming a teacher) makes teachers less sympathetic towards disadvantaged or minority groups, some modification should be introduced in the socialisation process which teachers go through during their study or work.

If mothers felt that their contribution goes hand in hand with that of teachers, it would improve their self-image. A higher opinion of their value would in turn lead to better communication between teachers

and mothers. This could also encourage mothers of other cultures to join as para-professionals.

The time adults spent interacting between themselves showed an adverse effect on the time devoted to children. This was so for both mothers and teachers. The time spent in adult interaction was significantly higher when both were together in the room. This was particularly marked when teachers were accompanied by those mothers whom they had personally invited. A structured setting determines in advance how adults' time should be utilised. This would ensure that mothers became a valuable resource and although there would tend to be more adult interaction this would be outweighed by the value of their presence. Research has not yet covered this aspect although it is worthy of further investigation.

Until now, there has been no readily available information on the behaviour of para-professionals in pre-schools. The present data clearly show the necessity of taking into consideration the mothers' and children's characteristics and bearing them in mind would lead to a better understanding of the results. These could be of great benefit when implementing future programmes involving mothers. However, it is not sufficient just to compare mothers' behaviour with that of teachers and nursery nurses, although this information is invaluable to educational provision. Other variables ought to be taken into consideration. Amongst these are the motivation of mothers to become involved and the willingness of the headteachers and even more so, the staff, to incorporate mothers.

When evaluating these findings, it must be borne in mind that the number of subjects necessarily limits the generalisations which may be made from the data as does the wide variability observed within all groups; this was especially marked for the group of mothers.

Teachers spent more time in both conditions with the group of 'Only' children; whereas mothers tended to spend more time with those who had siblings although they still spent some with the group of 'Only' children. Although it would have been supposed that mothers would spend more time with their 'Only' children, the reverse was the case. Since it can be assumed that on the whole, mothers of only children give them undivided attention, it could have been expected that both would have been reluctant to share the other. However, mothers who have more than one child could have perhaps taken this as an opportunity to concentrate more time on the one child present than they can at home. It could also be thought that children who have to share their mothers' attention with other siblings at home find they do not wish to share them in the pre-school as well. No clear conclusions can be drawn from this because of the wide individual differences amongst children.

In view of the smallness of the sample and the caveats which ought to be taken into consideration because of the way in which the statistical tests were used, the findings must of course be considered as tentative and in need of replication. It is the belief of this researcher that this study raises important issues which require further investigation and intervention with respect to the way in which para-professionals behave in settings of a different nature. This could be of special importance considering that the pre-schools in which this study was carried out and indeed all pre-school compensatory programmes are devised to meet the needs of working-class children.

3. Towards a Better Conception of the Problem

Taking a critical look at the findings and the method used in the present study, it is possible to see the new aspects it has highlighted and also some of its limitations. Awareness of its limitations leads to fresh ideas for future research. As is always the case with investigation, new ideas can only emerge as a final product of research. Data collected with respect to mothers' behaviour and the effect their presence had on their children has indicated that further exploration would be necessary to obtain more detailed information. What is more important is that having completed this study, hints are given as to the ways in which the problems could be confronted in future research.

The data collected covered fully the expectations of the present study. They have suggested that adequately implemented para-professional involvement could offer an alternative or an adjunct to present pre-school models; they gave feedback to the ways through which parental involvement might be carried out and also indicated how parents could be more efficiently employed in the classrooms. Studies such as this one could offer ideas for solving the problem of the gap between home and school so frequently referred to in the literature (Evans, 1975). Furthermore, it has given information on which other aspects still need to be covered by future research.

Although data were recorded on most aspects which were of interest at this stage, it has become clear that there are others which still require further investigation. One of importance is how mothers would have behaved in classrooms other than that of their "Own" children. Also, how would their children have reacted knowing that their mothers were working in a different room from that in which the "Own" child attends. Another dimension would have been to consider not only the

effects of the mothers' presence on the amount of attention teachers gave these children (as was the case here), but also what effect this had on the interactions these children had with their peers.

If mothers had been interviewed on the opinion they held of their role within the classroom, a further understanding of their behaviour would have been achieved. For example, it would have been possible to assess whether their particular opinion determined their deployment. Despite the obvious advantages of the aspects mentioned above, they would have distorted the natural settings. Consequently, a more unrealistic picture would have been achieved. These aspects are worthy of a different, although complementary study.

With respect to information on language used by mothers and staff, other problems besides those just mentioned would have also arisen. As was said, to collect data on language, more elaborate technical devices would have been required. However, it is thought that those aspects for which information was collected were also of importance and should be given due attention.

In recent years there has been a tendency towards stressing the cognitive aspects (Chazan, 1978) and to give less attention to the effective components of the infants' experiences. This could perhaps be related to the historical events of the 1960s in which emphasis was given to the cognitive gains which were expected from the compensatory pre-school programmes. This was thought to be a step further towards giving working-class children greater opportunities; hence more equality could be achieved (Evans, 1975).

It is the belief of this researcher that more importance ought to be assigned to other dimensions as well. This is based on the results achieved up to now, indicating that socially and culturally disadvantaged children have not benefited to the desired extent from the actual

programmes (Woodhead, 1979). The current pre-school experience has been described as alien to them (Midwinter, 1975). It could perhaps be thought that by bringing working-class mothers into the settings, children would feel more akin to the adults who would, in turn, be able to create a more familiar relationship with them. This is an aspect which has been stressed in the literature (Woodhead, 1979; Honig, 1972). If mothers were involved in the schools, it would also mean a bond with the community. This has also been thought of as a necessary dimension (Nedler & McAfee, 1979).

Disadvantaged children come into the pre-school which are settings which are very dissimilar from their own. This includes not only the characteristics of the staff, but also covers the more formal aspects (Woodhead, 1979). Bringing in mothers of other cultures could perhaps help develop or create a different atmosphere for children who feel alienated. No mothers from these groups were found involved in the schools visited and so this dimension had to be left unconsidered. The maternal behaviours of these groups, the interactions they would hold with the staff and the children are worthy of further research. Studies of this nature would help us to gain an understanding of how particular cultural values and behaviours are expressed in these settings. This is an aspect of great importance for future educational plans, particularly if the actual form of the pre-school programmes is to be improved upon. There is an increasing concern in Western European countries (Woodhead, 1979; Chazan, 1978) as well as in North America (Evans, 1975) for the problems faced by immigrant children and their families.

4. Methodological Aspects which should be Considered in Future Research

By using naturalistic observation it has been possible to study the activities in which adults were involved and a distinction was made between positive and negative styles of interaction. A more thorough description of the qualitative aspect cannot be achieved in a study done with only one observer. Future studies must investigate the way in which affection is communicated to children and what effect this has on their development. There is a great need for interactive techniques for capturing the dynamic interplay between subjects. A more suitable method to achieve this aim would have been the use of the continuous recording, or the running record. This approach, however, poses methodological and technical difficulties. These problems apply to both the recording of information and data reduction (Smith & Connolly, 1972). These problems are especially marked if the study is carried out by only one observer and no technical apparatus is used. For this reason, time sampling was preferred for the present study. This method did not give the same information as the running record would have done, but it made the study possible. Some aspects are necessarily lost by its use. For example, in this study it was felt that information with respect to initiation of interaction and/or activities could not be gathered with any degree of certainty. In many cases, the "on and off" nature of time sampling prevented identification of which subject had initiated the activity. For example: teacher conversing with mother, mother working with child.

The data obtained from the present study have only considered the amount of time adult and child as well as adult and adult spent together. Lewis & Lee-Painter (1974) have argued that the type of results obtained from research will be largely dependent on the type of measurement used. They say that measuring frequency of occurrence can give quite contrary results to those obtained by incorporating an analysis of directed

interaction. They add that this makes the analysis of data an "extremely complex task". Lewis & Lee-Painter (1974) assert that it is a mistake to analyse the elements rather than the interaction. However, after the pilot stage the present researcher felt that collecting data on initiative of interaction and activities would have led to misleading results. This could have been due to the somewhat lengthy periods (50 seconds) between each observation unit. Having tried out several different duration spells, this one was chosen as the most suitable one as it had to allow for the fact there was only one observer throughout the study. Also more than one activity was usually observed within each observation unit.

Although initiation is an important aspect when studying deployment of para-professionals, only by the use of more refined methods, or more observers, could this be examined. As mothers did not receive supervision or any explicit guidance or instructions as to what was expected of them, but were left to their own devices, measuring initiation of interaction would have been of particular importance. It would have facilitated an evaluation of which characteristics led mothers to initiate activities. The settings were quite unfamiliar to the mothers and no training was given which poses the question of which would have been their predominant behaviour if other circumstances had prevailed.

Studying who approached whom (i.e. mother or child) and how long mothers spent with their "Own" children is also an important aspect. The way in which these data were collected did not give information as to who sought the other's company, i.e. whether it was the mother or the child who most frequently approached the other. This is also a matter of interest for further research and has important implications for the use of mothers as a resource in educational settings.

For all subjects studied the same categorical system was used with

respect to activities. This allowed comparative analysis. A possible limitation when studying these groups was that at all times the observer was aware of the group to which each of the subjects belonged. This was an unavoidable problem. However serious this might be, only further controlled investigation would offer a solution to this.

Due to technical limitations no information was collected with respect to duration of activities. This is a problem which is referred to in the literature (Jones et al., 1975). However, it would be useful in future to devise more adequate methods through which duration could be assessed. This could also apply to refined behaviour modalities such as smiles.

Although it has been possible to obtain a highly differentiated picture of what took place in the settings studied, the research was limited to two pre-schools. Moreover, this research only observed white, English-born mothers and could not be extended to other cultural groups. This was because only such mothers were involved when the study commenced and remained the case throughout.

5. Concluding Remarks

In thinking about existing models of pre-school education it is evident that there have been an enormous number of centres opened during the last two decades. These centres have been essentially geared towards giving preferential attention to the socially and culturally disadvantaged children. Those children who have attended the pre-school programmes have shown some positive changes. However, more could, and should, be done in order to obtain other more adequate alternatives for the early

years of the working-class children and their mothers as well as to the children's later development. Researchers in this field have argued that no consideration has been given either to the particular needs of the disadvantaged children or to the many subtle qualitative differences found between social classes and cultural groups.

Aspects such as the emotional side or the characteristics of the families of these children have not been properly considered. This has led to much discussion on the real goals of pre-school education. These programmes have been devised without giving deep consideration to the essential needs of disadvantaged children and their families. The present research was carried out in the hope that this situation could be improved by finding new alternatives to the existing provision.

The findings of this study have shown that in many ways mothers' behaviour is indistinguishable from that of teachers and nursery nurses. It could be thought that if the settings were altered to some extent (e.g. creating more structured programmes, or training mothers) better results could be expected. Even if the settings remained in the same form as those of this study, the mothers can be considered as an important additional resource. It can be assumed from the findings that mothers allowed themselves to be used in the classrooms. This is concluded from the way in which they became involved with staff and children. By bringing mothers into the schools, children could receive individual attention and more places could be made available.

6. Implications for Future Latin American Pre-School Programmes

As was mentioned in the Preface to the present study, the ultimate concern was the relevance of this research in Latin America.

As some authors have pointed out (Monckeberg & Schiefelbein, 1974), in the last decade there has been a growing interest in extending or reformulating the Latin American educational system, with the basic aim of seeking possible solutions for the many problems of children coming from socially deprived areas.

In Latin America, some projects have been carried out (McKay, 1978; Alvarez, 1977) aimed at alleviating the conditions of poverty to which an outstanding number of its population are subjected. On the whole, these moves have been orientated towards creating some form of pre-school provision. Despite such efforts, by the time children reach pre-school they are already suffering from severe 'symptoms' of poverty, most of which can no longer be removed. For this reason, more recent programmes orientated towards the education of the family have emerged. They were conceived realising that despite the economic conditions in which these families were living, some changes in attitude could be attained and thus the children could develop better (Echeverria, 1977).

However, several other social and political factors have been shown to interfere with this model and further innovations ought still to be introduced once the reality with which these programmes were faced is understood further (Klein et al., 1977).

The conclusions of the Van Leer Seminar (1979) suggest that "without proper understanding of these trends and without identifying who gives primary care, well-intentioned programmes directed at the natural parents may be ineffectual at best, and, at the worst have dire social consequences".

The debate on compensatory programmes has also penetrated the under-developed countries (Pollitt & Thompson, 1977; Mora et al., 1974) and there is extensive agreement regarding the positive role which well-orientated early intervention can have in the development of the children.

The developing countries understand, as do the more developed ones, that early intervention cannot be centred only on the child, but must penetrate beyond, to those who have the primary and closest relationship with the children (Klein et al., 1977).

At this point, it should be made clear that a view is taken here which is shared with many others (Pollitt & Thompson, 1975) that the effect of education alone cannot override poverty and that thinking in these terms is an oversimplification of the problems of poverty. However, the view is also held that much can be done in this respect by equipping these programmes to cope with and alleviate the conditions which poverty imposes (Behar, 1976). For this reason, there is a vital and urgent need for expansion of such programmes. There is, however, an equally urgent need for a deeper understanding of the real necessities and characteristics of those who most need help. Without this understanding, little of real benefit can be done.

Despite the many problems which pre-school education faces, there seems to be an agreement on the fact that other solutions need still to be tried out and that pre-schools can, if well-implemented, bring some alleviation to the conditions suffered by children from poverty areas (Mora, et al., 1974).

The Van Leer Seminar (1979) proposed that alternatives to the ways in which pre-school has been implemented ought to be tried out and it was then stressed that "Perhaps the most significant innovation which the region has produced is the use of educational para-professionals. Such educational workers introduce familiarity with the wider community and its reality, sensitivity to local cultures, awareness of real life experiences. They enable the school through their association with the local economy and culture to respond more effectively to community demands. These so-called para-professionals are thus in many ways

professional exponents of the particular culture and way of life, and thus contribute in their various individual ways to the satisfaction of the needs of the child in his own community. They place at the disposal of education a whole new range of skills, insights and perceptions".

It has been suggested that this method of bringing in volunteer workers from the community itself is a plausible system in the pre-school (Van Leer Foundation, 1974). Such a method has - according to the Van Leer Seminar - several advantages over a fully professionalised system, "which is barely attainable even in the wealthiest societies".

The underlying idea of this study was to examine the extent to which a pre-school system can rely upon volunteer work when supervised by trained teachers.

Conditions prevailing in Latin America do not easily permit evaluative studies. The way in which events take place and the emergence of the problems do not always create the most adequate conditions for evaluation to take place. For this reason it was found that, with great awareness of the completely different conditions under which disadvantaged children live and are educated in developed and underdeveloped countries, the setting of the present study seemed to be the most acceptable one in which to carry out a project of this type.

Furthermore, a thorough understanding of all components and dynamics of the stages through which pre-school education has gone in the developed countries, the ways in which it is thought to have failed and those in which it is thought to have succeeded can give useful hints to the underdeveloped ones. In no way is it thought that these models could be transplanted in the developing countries. However, Latin American people involved in community work feel the lack of technological support. It was for this reason, concluded by the Van Leer Seminar (1979) that "In the absence of such technological support greater opportunity should be

provided for more field workers to absorb the philosophy and experience of others by participating in seminars with people involved in similar projects. This informal and personal exchange of ideas and experiences would assist workers in communities to determine for themselves when there were programme ideas that might be adapted to their circumstances".

A P P E N D I X N O . I

T A B L E S

TABLE 29: PERCENTAGE OF TIME SPENT BY TEACHERS ALONE IN THE DIFFERENT ACTIVITIES STUDIED

Ch. Ac.			N.Ch. Ac.			No Ac.
Ch. Ac.	D.C.	I.C.	N.Ch.Ac.	I.A.	H.E.	No Ac.
76.14	61.36	14.77	23.87	3.41	20.46	0.00
70.73	60.81	9.92	29.26	3.31	25.95	0.00
69.67	63.12	6.56	30.33	0.82	29.51	0.00
53.42	40.41	13.01	46.58	23.89	22.68	0.00
67.45	55.84	11.63	32.56	6.98	25.58	0.00
64.58	52.08	12.50	35.41	0.00	35.41	0.00
70.45	63.63	6.82	29.54	11.36	18.18	0.00
42.12	31.58	10.53	55.26	2.63	52.63	2.63
85.71	85.71	0.00	14.29	0.00	14.29	0.00

TABLE 30:
PERCENTAGE OF TIME SPENT BY TEACHERS
ALONE IN NEGATIVE AND
POSITIVE INTERACTION

D.C.-	D.C.+
5.11	56.25
2.79	58.02
2.46	60.66
4.78	35.63
0.00	55.84
0.00	52.08
0.00	63.63
0.00	31.58
0.00	85.71

TABLE 31: PERCENTAGE OF TIME SPENT BY TEACHERS WITH MOTHERS IN THE DIFFERENT ACTIVITIES STUDIED

Ch. Ac.			N. Ch. Ac.*			No Ac.
Ch. Ac.	D.C.	I.C.	N.Ch.Ac.	I.A.	H.E.	No Ac.
50.00	45.01	5.00	50.00	22.73	27.28	0.00
83.33	79.64	3.70	16.66	1.85	14.82	0.00
63.41	41.46	21.95	36.59	4.88	31.71	0.00
80.65	64.51	16.13	17.73	1.61	16.13	1.61
71.43	52.37	19.04	28.57	7.14	21.43	0.00
66.66	61.90	4.76	33.33	4.76	28.57	0.00
60.01	33.34	26.67	40.00	6.67	33.33	0.00
68.18	43.19	25.00	31.82	9.09	22.73	0.00
67.35	55.10	12.24	32.65	6.12	26.53	0.00
70.70	58.64	12.08	29.31	5.17	24.14	0.00
53.49	39.54	13.95	46.51	16.27	30.24	0.00
64.70	51.96	12.74	35.29	22.54	11.76	0.00
52.08	37.50	14.58	47.92	10.42	33.33	0.00
84.91	73.59	11.32	15.10	5.66	9.43	0.00
52.17	45.65	6.52	47.82	2.17	45.67	0.00
78.26	56.52	21.74	19.57	4.35	15.22	2.17
60.46	60.46	0.00	34.88	4.65	30.23	4.65
77.14	74.28	2.86	22.86	0.00	22.86	0.00

* Some of the scores do not add up to 100% due to activities being unclassifiable

TABLE 32: PERCENTAGE OF
TIME SPENT BY TEACHERS
WITH MOTHERS IN NEGATIVE
AND POSITIVE INTERACTION

D.C.-	D.C.+
0.00	45.01
1.85	77.79
0.00	41.46
0.00	64.51
6.98	45.39
5.88	56.02
0.00	33.34
4.55	38.64
0.00	55.10
1.73	56.91
6.98	32.56
5.88	46.08
2.08	35.42
1.89	71.70
0.00	45.65
0.00	56.52
4.65	55.81
0.00	74.28

TABLE 33: PERCENTAGE OF TIME SPENT BY MOTHERS ALONE IN THE DIFFERENT ACTIVITIES

Ch. Ac.			N.Ch. Ac.			No Ac.
Ch. Ac.	D.C.	I.C.	N.Ch.Ac.*	I.A.	H.E.	No Ac.
74.80	65.34	9.44	22.84	5.51	17.32	2.37
67.42	64.05	3.37	31.46	12.36	16.86	1.12
72.59	61.53	11.05	24.52	5.79	18.75	2.88
46.50	37.22	9.31	34.89	16.28	18.60	18.60
74.55	63.61	10.93	20.00	1.82	16.36	5.46
76.84	56.85	20.00	21.05	5.79	14.21	2.11
81.71	63.84	17.87	15.63	4.91	10.27	2.68
47.17	20.76	26.41	49.06	1.89	43.40	3.77
43.47	34.78	8.70	56.52	6.52	50.00	0.00
84.45	75.56	8.89	6.66	0.00	6.66	8.89
62.79	60.47	2.33	32.56	4.65	18.60	4.65
40.44	30.22	10.22	57.78	7.11	50.67	1.78
39.16	24.16	15.00	55.00	6.67	48.33	5.83
75.51	61.22	14.29	24.48	8.16	16.32	0.00

* Some of the scores do not add up to 100% due to activities being unclassifiable

TABLE 34:
PERCENTAGE OF TIME SPENT
BY MOTHERS IN NEGATIVE
AND POSITIVE INTERACTION

D.C.-	D.C.+
3.15	62.19
0.00	64.05
1.05	55.80
0.90	62.94
1.89	18.87
0.00	34.78
8.88	66.68
0.00	60.47
0.96	60.57
2.33	34.89
1.81	61.80
1.76	28.46
1.67	22.49
0.00	61.22

TABLE 35: PERCENTAGE OF TIME SPENT BY MOTHERS WITH TEACHERS IN THE DIFFERENT ACTIVITIES STUDIED

Ch. Ac.	D.C.	I.C.	Non Ch.*	I.A.	H.E.	No Ac.
58.54	56.10	2.44	34.15	14.63	19.51	7.32
70.22	51.07	19.16	29.79	6.38	23.40	0.00
46.67	39.99	6.66	51.11	4.44	46.67	2.22
32.61	28.25	4.35	50.00	10.87	39.14	17.39
37.50	30.00	7.50	35.00	12.50	20.00	27.50
26.66	22.22	4.44	71.11	13.33	57.77	2.22
87.51	62.51	25.00	0.00	0.00	0.00	12.50
33.33	26.19	7.14	42.85	4.76	38.10	23.81
52.83	41.52	11.32	35.85	0.00	35.85	11.32
21.15	15.38	5.77	75.00	36.54	38.46	3.85
80.78	61.54	19.23	11.54	1.92	9.62	7.69
59.65	49.12	10.53	40.34	3.51	36.84	0.00
80.95	67.60	13.33	16.19	4.75	11.42	2.86
33.33	12.50	20.83	56.25	16.67	39.58	10.42
77.78	72.23	5.56	16.67	5.56	11.11	5.56
85.71	57.14	28.57	14.28	4.76	9.52	0.00
96.07	88.22	7.84	0.00	0.00	0.00	3.92
66.66	60.60	6.06	24.24	3.03	21.21	9.09

* Some of the scores do not add up to 100% due to activities being unclassifiable

TABLE 36: PERCENTAGE OF
TIME SPENT BY MOTHERS
WITH TEACHERS IN NEGATIVE
AND POSITIVE INTERACTION

D.C.-	D.C.+
0.00	56.10
0.00	51.07
0.00	39.99
0.00	28.25
2.50	27.50
0.00	22.22
0.00	62.51
0.00	26.19
1.89	39.63
0.00	15.38
0.00	61.54
2.86	64.74
0.00	12.50
0.00	49.12
1.96	86.26
0.00	72.23
4.76	52.38
0.00	60.60

TABLE 37: PERCENTAGE OF TIME SPENT BY NURSERY NURSES IN THE DIFFERENT ACTIVITIES STUDIED

Ch. Ac.			N.Ch. Ac.			No Ac.
Ch. Ac.	D.C.	I.C.	N.Ch. Ac.	I.A.	H.E.	No Ac.
70.13	58.44	11.69	28.57	8.20	20.37	1.30
72.38	57.14	15.24	27.62	7.20	20.42	0.00
57.50	50.00	7.50	42.50	7.93	34.57	0.00
80.91	65.46	15.45	19.09	8.02	11.07	0.00
48.94	44.68	4.26	50.00	14.13	35.87	1.06
69.86	61.64	8.22	23.29	11.90	11.39	6.85
50.40	41.60	8.80	48.80	18.00	30.80	0.80
64.37	57.47	6.90	35.63	7.00	28.63	0.00

TABLE 38: PERCENTAGE OF TIME SPENT BY NURSERY NURSES
IN NEGATIVE AND POSITIVE INTERACTION

D.C.+	D.C.-
57.14	1.30
54.28	2.86
47.50	2.50
62.73	2.73
43.62	1.06
60.27	1.37
39.20	2.40
54.02	3.45

TABLE 39: PERCENTAGE OF TIME SPENT BY TEACHERS ALONE WITH THE "OWN" CHILD IN THE DIFFERENT ACTIVITIES AND THAT SPENT IN POSITIVE NEGATIVE INTERACTION

Ch. Ac.	D.C.	I.C.
0.00	0.00	0.00
2.50	0.00	2.50
3.53	3.53	0.00
2.35	2.35	0.00
0.00	0.00	0.00
1.18	1.18	0.00
0.00	0.00	0.00
1.18	0.00	1.18
6.01	4.81	1.20
4.82	2.41	2.41
3.61	3.61	0.00
9.30	9.30	0.00
5.27	5.27	0.00
4.17	0.00	4.17
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DC+	DC-
0.00	0.00
0.00	0.00
3.53	0.00
2.35	0.00
0.00	0.00
1.18	0.00
0.00	0.00
0.00	0.00
3.61	1.20
2.41	0.00
3.61	0.00
9.30	0.00
5.27	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

TABLE 40: PERCENTAGE OF TIME SPENT BY TEACHERS WITH MOTHERS WITH THE "OWN" CHILD IN THE DIFFERENT ACTIVITIES AND THAT SPENT IN POSITIVE AND NEGATIVE INTERACTION

Ch. Ac.	D.C.	I.C.
0.00	0.00	0.00
3.70	1.85	1.85
12.20	4.88	7.32
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00
2.17	2.17	0.00
0.00	0.00	0.00
5.19	1.73	3.46
0.00	0.00	0.00
0.00	0.00	0.00
1.96	1.96	0.00
6.52	0.00	6.52
0.00	0.00	0.00
0.00	0.00	0.00

DC+	DC-
0.00	0.00
1.85	0.00
4.88	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
2.17	0.00
0.00	0.00
0.00	1.73
0.00	0.00
0.00	0.00
0.00	1.96
0.00	0.00
0.00	0.00
0.00	0.00

TABLE 41: PERCENTAGE OF TIME SPENT BY MOTHERS ALONE WITH THE "OWN" CHILD IN THE DIFFERENT ACTIVITIES AND THAT SPENT IN POSITIVE AND NEGATIVE INTERACTION

Ch.Ac.	D.C.	I.C.
7.09	7.09	0.00
8.99	7.87	1.12
12.10	11.05	1.05
16.98	7.55	9.43
0.00	0.00	0.00
0.00	0.00	0.00
2.33	0.00	2.33
12.06	9.38	2.68
12.71	10.90	1.81
6.98	2.33	4.65
16.34	14.90	1.44
6.67	5.00	1.67
11.56	5.78	5.78
22.45	18.37	4.08

DC+	DC-
7.09	0.00
7.87	0.00
10.00	1.05
7.55	0.00
0.00	0.00
0.00	0.00
0.00	0.00
9.38	0.00
9.09	1.81
2.33	0.00
14.90	0.00
4.17	0.83
5.78	0.00
18.00	0.37

TABLE 42: PERCENTAGE OF TIME SPENT BY MOTHERS WITH TEACHERS WITH THE "OWN" CHILD IN THE DIFFERENT ACTIVITIES AND THAT SPENT IN POSITIVE AND NEGATIVE INTERACTION

Ch. Ac.	D.C.	I.C.
2.44	2.44	0.00
14.90	10.64	4.26
11.12	8.89	2.23
2.17	2.17	0.00
27.50	25.00	2.50
0.00	0.00	0.00
0.00	0.00	0.00
11.90	11.90	0.00
1.89	1.89	0.00
3.85	3.85	0.00
28.85	17.31	11.54
3.82	2.87	0.95
12.50	8.33	4.17
33.33	33.33	0.00
61.90	35.71	26.19
18.18	18.18	0.00
9.80	5.88	3.92

DC+	DC-
2.44	0.00
10.64	0.00
8.89	0.00
2.17	0.00
25.00	0.00
0.00	0.00
0.00	0.00
11.90	0.00
1.89	0.00
3.85	0.00
17.31	0.00
2.87	0.00
8.33	0.00
33.33	0.00
33.33	2.38
18.18	0.00
5.88	0.00

TABLE 43: PERCENTAGE OF TIME SPENT BY THE NURSERY NURSES* WITH THE "OWN" CHILD IN THE DIFFERENT ACTIVITIES AND THAT APENT IN POSITIVE AND NEGATIVE INTERACTION

Ch.Ac.	D.C.	I.C.	DC+	DC-
4.20	2.52	1.68	1.68	0.84
10.08	7.56	2.52	7.56	0.00
8.40	4.20	4.20	4.20	0.00
9.24	4.20	5.04	4.20	0.00
0.84	0.00	0.84	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
7.38	1.34	6.04	1.34	0.00
6.71	6.04	0.67	4.70	1.34
3.35	1.34	2.01	1.34	0.00
3.35	2.01	1.34	2.01	0.00
0.00	0.00	0.00	0.00	0.00
0.77	0.00	0.77	0.00	0.00
0.00	0.00	0.00	0.00	0.00
6.00	2.00	4.00	2.00	0.00
0.00	0.00	0.00	0.00	0.00
3.64	3.64	0.00	3.64	0.00
0.91	0.00	0.91	0.00	0.00
0.91	0.91	0.00	0.91	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
1.04	1.04	0.00	1.04	0.00
0.00	0.00	0.00	0.00	0.00
6.06	6.06	0.00	6.06	0.00
5.05	3.03	2.02	3.03	0.00

* Each "Own" child was observed with two nursery nurses.
The two who worked in the room they attended.

TABLE 44: PERCENTAGE OF
TIME SPENT BY MOTHERS ALONE
IN THE DIFFERENT ACTIVITIES
WHEN THE TIME SPENT WITH
THE "OWN" CHILD WAS DISREGARDED

Ch. Ac.	D.C.	I.C.
67.71	58.25	9.44
58.43	56.18	2.25
64.74	45.80	18.95
69.65	54.46	15.19
30.19	13.21	16.98
43.47	34.78	8.70
84.45	75.56	8.89
60.46	60.46	0.00
56.25	46.63	9.61
39.52	34.89	4.66
61.81	52.71	9.12
28.88	24.44	4.44
32.49	19.16	13.33
53.06	42.85	10.21

TABLE 45: PERCENTAGE OF TIME SPENT BY MOTHERS WITH TEACHERS IN THE DIFFERENT ACTIVITIES WHEN THE TIME WITH THE "OWN" CHILD WAS DISREGARDED

Ch. Ac.	D.C.	I.C.
56.10	53.66	2.44
55.32	47.43	14.90
35.55	31.10	4.43
30.44	26.08	4.35
10.00	5.00	5.00
26.66	22.22	4.44
87.51	62.51	25.00
21.43	14.29	7.14
50.94	39.63	11.32
17.30	11.53	5.77
51.93	44.23	7.69
59.65	49.12	10.53
77.13	64.73	12.38
20.83	4.17	16.66
44.45	38.90	5.56
23.80	21.43	2.38
86.27	82.34	3.92
48.48	42.42	6.06

TABLE 46:

TOTAL OBSERVATION PERIODS (in minutes) FOR THE FIVE CONDITIONS
STUDIED

C O N D I T I O N S				
T	TwM	M	MwT	NN
176	44	127	41	69
393	54	89	47	73
244	41	190	45	87
146	42	53	40	79
43	42	46	45	94
48	30	45	32	77
44	44	43	42	40
38	62	224	46	110
42	43	55	52	
	58	43	52	
	49	208	53	
	102	120	105	
	48	225	48	
	53	49	57	
	46		51	
	46		36	
	43		43	
	35		33	

TABLE 47: SEX AND RACIAL ORIGIN OF CHILDREN IN THE DIFFERENT CLASSROOMS

		White	Other Races	Total
CLASSROOM 1	Masc.	11	2	13
	Fem.	17	3	20
	Total	28	5	33
CLASSROOM 2	Masc.	12	6	18
	Fem.	3	5	8
	Total	15	11	26
CLASSROOM 3	Masc.	14	5	19
	Fem.	11	1	12
	Total	25	6	31
CLASSROOM 4	Masc.	10	3	13
	Fem.	17	0	17
	Total	27	3	30
CLASSROOM 5	Masc.	11	3	14
	Fem.	15	1	16
	Total	26	4	30
CLASSROOM 6	Masc.	14	4	18
	Fem.	11	2	13
	Total	25	6	31

TABLE 48: SOCIAL CLASS DISTRIBUTION OF THE MOTHERS STUDIED

II (Nm)	III (M)	IV (M)	V (M)
2	9	3	2

TABLE 49: PUPILS AGED UNDER 5 AT 31 DECEMBER 1975

AGE	FULL-TIME PUPILS	PART-TIME PUPILS	
		*BOYS	GIRLS
2	432	600	530
3	6 023	10 524	9 874
4 (born 1.4.1971 to 31.12.1971)	8 062	6 641	6 167
4 (born 1.1.1971 to 31.3.1971)	588	345	268
TOTAL	15 105	18 110	16 839

* No figures are given for full-time children according to sex.

From: Statistics of Education - Government Paper, Vol. 1., 1976
(Nursery Schools)

A P P E N D I X N O. I I

C H A R A C T E R I S T I C S O F M O T H E R S A N D P R E - S C H O O L S

Characteristics of Mothers and Pre-Schools

For obvious reasons, all the proper names in the cases which follow have been changed to fictitious ones.

The observer obtained the information from the headmistress, the teachers, the nursery nurses and sometimes, from the mothers themselves. In each case they were told that these details were necessary in order to obtain a more complete picture of the characteristics of those children who had mothers working in the classrooms. This background information will be given first and following it will come the descriptions.

Finally, details will be given of the pre-schools in which the study was carried out.

MRS. BROWN

Background

Mrs. Brown, who is now in her 30s, had a grammar school education, but left without any G.C.E. certificates. At a later date, she joined an Evening Class and passed G.C.E. English.

She is currently working at an Old Age Home on Sunday evenings. Prior to this she was a bank clerk and then a receptionist at a hospital.

Mr. Brown also left school without any G.C.E.s. He, too, joined an Evening Class and succeeded in passing "A" level Mathematics. He did an apprenticeship as a motor fitter and then took a Management Course which resulted in him attaining an H.N.C. in Engineering. He is now an Engineering Supervisor.

The Browns have one daughter and one son. During this study, Mrs. Brown was observed with her son, who is her second child. Christopher Brown attends for the morning sessions only.

Before the commencement of the study, this mother had been involved helping at the school occasionally. She had started bringing her daughter and stayed for the adaptation period. She was one of the 'Old' 'Accepted' group of mothers and worked in Room 5.

Description

Mrs. Brown was seen to be a cheerful and talkative person, always willing to help and frequently doing things on her own initiative. However, this characteristic seemed less obvious due to her overweight which caused premature tiredness and she could often be seen sitting for long periods on the children's tables. She liked chatting and easily became involved with other adults in her vicinity. She was often observed joining in when the children were singing whilst simultaneously sweeping up or clearing tables.

Christopher was observed to misbehave more when his mother was in the room and often the teacher had to intervene as Mrs. Brown could not control him. This caused her obvious embarrassment. However, he seemed completely unaffected by her involvement with other children.

Mrs. Brown always wore trousers and dressed in a simple fashion. She had an extremely clear speaking voice.

MRS. HUNT

Background

Mrs. Hunt was between 25 and 27 years old. After completing her secondary education at a Comprehensive School she had embarked on a Nursery Course. She left this course without completing even the first year, saying that she had become uneasy and bored.

Mr. Hunt was currently involved in Radiography studies for which he was paid by the same hospital in which he worked.

The Hunts had only one daughter, Jayne, who seemed very grown-up compared with the other children in the class.

This mother was very friendly with the teacher and at no point seemed concerned about the observer's presence. Mrs. Hunt's attitude towards the headteacher was also positive. Apparently, she had helped previously with other school activities such as outings.

She was located by the observer as an 'Old' and 'Accepted' mother.

Description

Mrs. Hunt seemed very active and self-sufficient. She had been coming for almost a year to help the teacher during the last hour of the afternoon to clean up and put toys etc. away.

Jayne Hunt was clearly the 'leader' of the whole class. She was

frequently seen in the Wendy House playing mothers and fathers and she always played an important role in the game. The staff in the room seemed to like her, although they would tell her off when she tended to be too domineering over the other children.

No behaviour differences were observed in Jayne's case, whether her mother was present or absent; perhaps to some extent she became more dominant over the other children during her mother's presence.

Mrs. Hunt used to wear very high heeled boots which she would leave in a bag when she arrived and change into her slippers which she brought with her every day. She always arrived punctually on the day which had been appointed.

MRS. RICHARDSON

Background

It was not possible to find out the educational backgrounds in this case.

The Richardsons had an only son, Paul, who was very shy.

Mrs. Richardson had a good relationship with the teacher and an even better one with the headteacher.

She was located by the observer as being in the 'New' and 'Imposed' group.

Description

Mrs. Richardson was an active and pleasant person. She was constantly going from one end of the room to the other and became involved on her own initiative with the other children and also prepared play material spontaneously, which later, she laid on the working tables without being asked.

Paul seemed to become very upset when his mother was present. He used to cry frequently, and when his mother was there he would sometimes cry either repeatedly, or else once he had started crying it would last for a long time. He seemed quite upset by the fact that he had to share his mother with other children.

Mrs. Richardson seemed to be over-protective and over-concerned about him. This could be deduced, on the one hand because of her attitude and, on the other, because she approached the observer, either inside the room or when meeting in the nearby streets, to ask how her son was behaving and what a psychologist's opinion of his behaviour would be. Only general comments such as all children are like that would be made to her and this seemed to pacify her.

The boy's behaviour became consistently better during the later visits. This could very well have been due to his habituation to his mother's presence.

It was not possible for the observer to compare his behaviour during the observation with that before his mother started coming, but according to the staff in the room, he had always been of the crying type even before she started to come. Sometimes he would cling to his mother for a long time outside the classroom and would not become involved with the other children.

He was never seen playing with the rough type group of boys. However, he spent most of his free time period with boys.

MRS. JAMES

Background

The observer was never able to obtain any direct information from Mrs. James. The only time she talked to her was on one occasion when

they met outside the room. Mrs. James thought the observer was the mother of another child at the nursery school and made comments to the effect that she liked coming to the school very much and how difficult it was being a mother.

Mrs. James had recently been divorced from her husband and she had custody of their only son. The boy, Simon, only saw his father at weekends. He ran his own business - a shop in the South East End of London.

Mrs. James was purely a housewife and did not have a job outside her home.

Description

This mother was very shy and quiet. She was never observed doing things on her own initiative and was seen to leave the room very frequently.

Simon, a tall, talkative boy, was always seen, when that was permitted, playing outdoors involved in rough games or on wheeled vehicles. He was never seen working at a table for more than a few minutes but was always playing with other boys and these boys were of the 'rough' and 'noisy' type. He expressed, himself, that he disliked any sort of work which involved sitting quietly, writing, reading or doing a jigsaw, for example.

The staff and in particular the teacher, said that at the time they did not have any problems with Simon, but they all thought that he would more than likely become a difficult child when entering primary school.

Despite the fact that Mrs. James had a far-away and distracted look all the time, she was always present on the day which had been allocated for her to come, and sometimes she came more often.

This mother was very pale and had very long hair which she wore hanging loose at the back. Her clothes were always clean, but very plain and simple. She was nearly always seen wearing shoes which looked very much like slippers. She walked slowly and talked in a low voice. She would, perhaps when she felt observed, look up and give a quick smile which disappeared as quickly. Her forehead always appeared very taught.

MRS. GILES

Background

Mrs. Giles was about 30 to 33 years old and came from the North of England.

It was not possible to obtain any educational background information in this case.

During the study, this mother was observed with her son, Mark, who was the second child after an older sister.

Mrs. Giles had been invited to help by the headteacher, whom for some reason which she never explained, seemed to like this mother. However, the teacher and the nursery nurse obviously did not like her and suggestions were never made to her as to how she could help.

Description

At the beginning of the study, Mrs. Giles was seen to be an extremely shy person with a sense of insecurity. During the pilot stage she was observed to stand on her own for long periods and just look at the children. With time, she gained more confidence and used to involve herself with groups of children, sometimes almost as if behind the teacher's back.

Mrs. Giles was the only mother who knew she was being observed because the headteacher had told her so and this was reflected in her attitude towards the observer. She seemed to accept the observer's presence, but whenever possible tried to hide from her sight and when she felt she was being observed tried to change an activity. After a short while her attitude changed and she started to approach the observer. Initially, the observer could not understand what she was saying due to her northern accent. However, little by little, a small relationship built up, based purely on brief smiles which occurred repeatedly across the room.

At first, Mark would hide behind chairs from the observer. This could have been due to the fact that his mother knew they were being observed and have told him so. Shortly after the first session he started to approach the observer. He was the only child in the study to do this and pretended to bring tea and biscuits with teacups, saucers, teapots and sugar bowl. He then left just as if nothing had taken place.

This child was observed to become very jealous of his mother's presence. It was obvious that mother and child got along well together, both from what she said and observations made by the observer when she saw them walking together in the nearby streets. However, Mark was particularly jealous when she was with girls and once he became aware that she was playing or working or talking to other children he would push his way through them in order to be next to his mother. This attitude was persistent during the whole observation period. The mother reacted without altering her actions. She would either accept him or else explain to him that she was "simply playing, don't you see?" After this, with certain frequency, he would retire leaving her with the other children. Later he would return again.

Mrs. Giles had long, fair hair which hung down her back. She dressed very plainly and had a somewhat sad expression.

MRS. WATSON

Background

Mrs. Watson was a very young mother.

No direct information could be obtained from her, because due to her passive attitude to all activities and adults around her, the teacher suggested that she should not be asked. About the time she started at the school, she had also started working in a pub.

She was observed with her son, Darren, who was born 2 to 3 years before she was married, when she was only 17 years old. Subsequently, she married his father and later had a daughter who was no more than about 2 years old when this study took place.

Mr. Watson was much older than his wife and worked for the Council.

The baby girl, whom she brought with her on the days she came to help, was left outside the room in her pram. Most of the time she was very quiet. The mother occasionally approached the pram, but was never seen to pick up the baby in her arms.

Mrs. Watson was considered to be part of the 'New' Group. She was an 'Imposed' mother, because she had been invited by the headteacher.

Description

Mrs. Watson appeared to be rather shy and did not seem to enjoy the fact she was in the classroom helping. Her attitude was one of just being there because she had been asked and felt she could not say 'no'.

Her relationship with the teacher was not bad, but it could not be called an open one. She never looked at the observer and tended to avoid catching her eye. Her interactions with the other staff were scarce and she never looked up, but kept her eyes fixed on the floor.

This mother did very little on the whole and even less on her own initiative. She always attended on the days she was expected to, but even with time her attitude did not seem to change.

Darren, who attended for the full day, was a very pleasant child who looked to other children for company. Apparently, the staff in the room, as well as in the other rooms, liked him. He was extremely active and never seen sitting on a chair working on his own initiative. He was always seen involved with 'only boys' and preferably in outdoor play, making a lot of use of wheeled toys in the playground.

Mrs. Watson always wore very high heels and tight trousers. She spoke very seldom but when she did, she had a clear accent.

MRS. NORRIS

Background

Mrs. Norris was between 23 and 25 years old. When at school, she was a poor student. She had attended a Comprehensive school where she had started a typing course which she did not complete.

Prior to the birth of her first child she had worked at a job she enjoyed - writing names on labels in an Industrial Company.

At the time of the study she did not go out to work, but was looking for something to do as she did not like being at home all day.

Mr. Norris was in the Carpentry Trade. He was an unskilled worker; he had not taken any courses but she said he was so good at his job that people commented on his ability. He was considered to be a labourer.

The Norrises had two sons, the elder of which was now at primary

school and was reported to be behaving badly. The observation was carried out between the mother and her second son, Greg. Greg attended for half days only.

Mrs. Norris said that the two boys were very badly behaved and sometimes they would run out of the flat and she had to run after them.

She was imposed by the headteacher and formed part of what was defined as the 'Imposed' and 'New' mothers.

Description

Mrs. Norris was constantly looking for possibilities to converse and to do this she would follow the member of staff who was present. She was too shy to initiate a conversation with the observer. At first, she was not very helpful and everything seemed to bore her. Little by little, she seemed to do more on her own initiative and would stand up without being asked to do certain things. When she was observed on her own, her interactions with the nursery nurses were frequent and she used to follow them around as if looking for company but at the same time she became much more helpful.

At first, she seemed to stay by the children's sides but did not become really involved. This also changed and by the end of the observation period she was initiating activities herself. Once only, was she involved in reading to 3 to 4 children, early one morning. She obviously disliked this because her tone was monotonous and she made constant breaks until she had reached the end.

At first she did not like being observed and she even looked away when she thought the observer could see her. This slowly passed and she then looked to the observer for conversation. She was very curious about what was being done and felt very pleased when asked for details of her background and children.

Greg seemed unaffected by her presence in the room and by her involvement with other children. He was very thin and pale but was very playful. He talked very little and had very few child-child or adult-child interactions of his own initiative.

Mrs. Norris was always wearing very high heels which seemed to inhibit her movements and also an excess of make-up. Her English was extremely difficult to understand as she had a marked "working class" accent and a limited vocabulary.

MRS. DENNIS

Background

Mrs. Dennis must have been between 35 and 37 years old. She did not wish to give any information on her own, or her husband's educational background.

She had recently started work at a bakery, which was apparently the kind of place where it was easy for women in the area to find work. She said she was starting to like it - mainly as she did not wish to stay at home all day.

Mr. Dennis was a lorry driver.

They had two children, a daughter and then a son, Johnny with whom the mother was observed. Johnny stayed at the nursery school for full day sessions. Mrs. Dennis said he was the better behaved of the two children.

Mrs. Dennis was a mother from the 'new' and 'Imposed' group, because at the beginning of the study she was invited to join by the headteacher.

Description

Mrs. Dennis was a lively woman, always active and doing things on

her own initiative. She smiled frequently at the observer as well as at the children. She had a spontaneous relationship with all the adults around her. This mother commented that she liked coming in to help and she was seen to improve in terms of the times she initiated activities by herself either with the children or as regards cleaning up or putting things in order.

Johnny was a very gentle and sweet boy. He was seen to be very much on his own, practically all the time. He would either just stare, or look at other children at play, or sit and play at the clear end of a table. He was always quiet and seldom spoke. The staff in the room - especially one nursery nurse seemed to be very fond of him.

The mother was very talkative and approached the observer in a friendly way relatively frequently. She stated that she was rather concerned about the quiet attitude of her son and thought he would still have to spend more time at the nursery school before being ready to enter primary school.

Johnny did not seem to alter his behaviour when his mother was present.

Mrs. Dennis always wore formal clothes and her hair was immaculate.

MRS. MILLER

Background

Mrs. Miller was the oldest mother in the group observed. She was about 45 years old and her husband was much older. She said, "he is an old man approaching his sixties". Mrs. Miller had never gone out to work.

Mr. Miller was a Guardian at a Museum.

The Millers had not been able to have any children until Adrian came along. In order to have him she had had to stay in hospital for a

long time. The two parents were deeply fond of the boy and since his birth had both spoiled him, giving him everything he had wanted. Mrs. Miller said her husband was even worse than she was in this respect and Adrian could sometimes be very naughty to him.

Mrs. Miller had started coming to help just incidentally. She started staying every day for a short while after she had left her son and used to talk to the staff about all that had happened with the boy. Later she was asked by the headteacher to come and help but only once a week during the morning session. She would almost always stay for the whole day. She told the observer that all week she looked forward to her day at school. This was her only day out and she did not see anyone other than her husband and son for the whole week.

Description

At first, Mrs. Miller would constantly stay around or follow just any member of staff who was present to talk to. With time, she became involved in children's play. Sometimes she became so involved herself that she did not allow the children who at some previous point had become bored to do anything else until it was finished.

Later, the staff, or basically one of the nursery nurses (who told the observer that they felt sorry for Mrs. Miller because she was so lonely and her son behaved so badly), started asking her to do different things. The mother seemed to like this and got on quite well with what she had been asked to do.

She used to talk to the observer rather too frequently. She was then told that the observer could not be talked to during the observation period. After the session was finished and, although she had no precise idea of what the observer was doing, she approached her and asked her how she had done during the day.

As the study progressed, Mrs. Miller became better at doing things and did not follow the staff around nor interrupt the observer. At this same point, she started using make-up to come to school and coloured her hair. Her garments also looked much cleaner.

Adrian was a very active boy, somewhat rough and would always be seen in groups. Whenever possible, he would be outdoors and playing rough games or taking things away from other children. He would interfere in other children's games and then look to see whether some member of staff was looking. If nobody was watching he would stop it. He seemed to constantly need staff attention. Sometimes, he would approach the observer and push her pencil and then slowly move away as if he had not done anything.

Adrian did not mind his mother's presence in terms of becoming apparently jealous of other children, but his attitude towards his mother was never very pleasant or cordial. The boy was thought to be a "problem" child and the staff - headteacher, teacher and nursery nurses - thought his academic future was dubious.

MRS. COLLINS

Background

Mrs. Collins was a very young woman.

Neither Mrs. Collins nor her husband had finished secondary education, they had left before it was completed. She had never worked outside the house and did not like staying at home, but her husband was not too keen on her going out to work.

Mr. Collins worked in an industrial company where he was an assistant to a clerk, i.e. he was a white collar worker.

The Collins's had three boys and Mrs. Collins was observed with the youngest, Michael. The teacher said that she had known her for a long time and she had the impression that she had had her children when still very young and felt somewhat burdened by housekeeping. The teacher thought that all the three boys (she had also had the two older children in her class) had a strong chance of becoming "problem" children.

Mrs. Collins was invited by the headteacher and as such was part of the 'New' and 'Imposed' group. She did not attend regularly on the days on which she had offered to come in and help.

Description

Mrs. Collins was observed as a passive person, who did not move from her chair to initiate any activity which involved moving around. Unless asked to do otherwise, it appeared that she tried to stay at the same activity from the time she arrived until the time she left.

Of all the mothers, Mrs. Collins was the one who most avoided looking up and constantly tried to hide her eyes.

Michael was a very rough boy, who was never observed to be sitting down at any activity. When not allowed to play in the playground he would leave the classroom to play in the corridor with some wooden bricks. He always played with other boys. He did not seem to mind the presence of his mother and when the session had finished, she had to call him to go home with her.

This mother was once observed with a negative attitude towards a dark-skinned boy and she clearly pushed him away from her side with an expression of displeasure.

Mrs. Collins always wore very heavy make-up and dressed like a teenager. She always wore very tight jeans and clogs. Her hair was very long and worn loose.

MRS. PARSONS

Background

According to the teacher, Mrs. Parsons was between 28 and 30 years old.

She and her husband had finished secondary education and Mr. Parsons had passed some G.C.E.s, but she had not.

Mr. Parsons was a Londoner, born in the East End, who now had a manual job in industry.

At the time of this study, Mrs. Parsons did not go out to work, but once the study was finished, she started working in the kitchen as a paid helper and seemed very pleased about it.

The Parsons had two sons and Mrs. Parsons was observed with the younger one, Philip.

Description

Mrs. Parsons had been helping for quite a long time when the observer arrived and she was seen to have a very good relationship with the staff of the school on the whole. She was very open with the observer and although did not approach her during the observation period, she used to talk to her when meeting in the corridor or in the nearby streets. She was always happy and was often singing. She initiated activities basically on her own decisions and went from one end of the room to the other as if in her own home.

The headteacher seemed to like her and made favourable comments about her attitude to the observer. On several occasions she was seen chatting to the teacher, sometimes for quite a long time.

Philip was a quiet boy. He used to play in groups of boys but was not seen to join in with the very rough ones. He was somewhat affected by his mother's presence and this was especially marked during the

first activities of the morning. However, as the hour passed he used to join in with the other children easily. He was always seen to join the table activities and when in the playground he also acted calmly.

The staff seemed to like him and at some points the teacher dedicated special and extra time to him.

Mrs. Parsons personal appearance was very simple. She was always dressed in light colours, she did not use any make-up at all and her hair was rather long and tied up at the back of her head.

MRS. EVANS

Background

The teacher said that Mrs. Evans was under 30 years old. She had finished secondary education but had not passed all of her G.C.E.s. She had never been out to work and stayed at home except on the days when she came into the school as a helper.

Mr. Evans had not finished his secondary studies and was now working as a lorry driver.

The Evans had an only child, one son called Steven.

Mrs. Evans came in regularly when she said she would and had done so since she had started coming in as a helper sometime before this study had started. She was considered as belonging to the 'Accepted' and 'Old' group of mothers.

Description

Mrs. Evans was very shy and looked quiet. Despite this, she would play very easily with the children and usually she had a large group of children around her.

Mrs. Evans seemed to be hiding from the staff and from the observer.

On several occasions this was so evident that the observer had to leave the room for sometime when she was there. However, she had told the teacher in charge of her son's group that she liked coming in and enjoyed playing with the children.

She was nearly always found to be playing in the same corner of the room. The one in which small cars and big wooden bricks were kept. She became involved in playing with girls and boys, but most frequently was found playing in the Wendy House with the children or playing dolls or doctors.

Steven was constantly at her side or else when playing with other children would come to talk and then quickly leave again. When Steven was there she appeared to be more easily involved with the other children but when he was not there, she looked as if puzzled and took some time in deciding what to do.

When his mother was not present Steven was very shy and was almost always seen on his own. He became involved in a group with other boys, only when suggested by the Nursery Nurse. He was very quiet and he never really finished his work. He did not do much on his own initiative and was the sort of boy whose presence nobody was aware of spontaneously. He could remain unobserved due to his quiet and passive attitude.

Mrs. Evans was always dressed in the same way with a skirt and cardigan of light colouring. She wore plain shoes with no heels. She did not use any make-up and her hair was loose and shoulder length.

She pronounced her words clearly but spoke in a very soft voice.

MRS. THOMAS

Background

Mrs. Thomas had not done more than 3 years at secondary school nor had her husband. This is all the information which could be obtained in this respect.

Mrs. Thomas was a mother who was never observed on her own. This was because the teacher said she was not capable of staying on her own with the children of the group.

Mrs. Thomas had been brought in to help by the headteacher. The reason given was that she needed company and had recently been through a bad depressive state. She had come in before this study began, but had only been asked to look after the rabbits and other pets in the room. She did the same at home because her husband worked at a pet shop situated just in front of their house. He did not own this himself. She came regularly on the days allocated to her. She was considered as belonging to the 'Imposed' and 'New' group.

The Thomas's had two sons. Mrs. Thomas was observed with the younger one, Keith.

Description

Mrs. Thomas appeared to be a somewhat irritable person, especially with her own son. Keith approached her frequently and insisted on sitting on his mother's lap - a thing she did not seem to like very much. She did not have an easy approach towards children in that when she worked with them she spoke in a loud and strong voice but was never seen in any negative attitude towards other children. It was only to her son and she seemed very critical of him.

She looked to the staff as if wishing to start a conversation with them but the teacher and the nursery nurses were not very inclined to

do so. She only stared at the observer but never approached to ask anything or to converse. To some extent she talked to the headteacher, but from what the observer could hear, it was always about the pets.

Keith was never very active - neither when his mother was present nor when she was absent. He liked to play outdoors on the wheeled vehicles and was seen alone most of the time.

Mrs. Thomas was badly dressed, almost always wearing the same very tight skirt which was too small for her. Her hair looked unkempt and Keith was untidy as well. Her English was poor and words modulated very lazily; her vocabulary appeared to be very limited.

MRS. COOK

Background

According to the Nursery Nurse, Mrs. Cook was about 38 years old. She said that Mrs. Cook was very good at painting and was involved in this activity as a hobby.

She had finished her secondary education but had not passed any exams. The same applied to her husband.

Mr. Cook was a manual worker in Industry and they had lived in the area for a long time.

The Cooks had four children who were apparently all girls. The daughter with whom Mrs. Cook was observed in this study was the youngest, Catherine. The older girls were now doing very well at the Primary School located in the same area.

The mother had had an outside job for quite a long while. She had been helping in the same room in the Nursery School previously and so she was considered as 'Accepted' and 'Old' for the purpose of this study. After this study had been completed she was invited by the

headteacher to work with her on a partly voluntary basis doing Home Visiting. At the time the study finished she had just started to attend the training sessions for this work.

Description

Mrs. Cook was a very active woman. She continuously walked from one end of the room to the other. She walked and moved in a very self-assured way and initiated activities basically in painting on easels. She herself painted quite well and stimulated the children constantly to mix colours and tell her which they liked the best. When the children sang she joined in spontaneously singing quite loudly.

Mrs. Cook did not talk to the staff - teachers or nursery nurses - only very occasionally did she do so. There seemed to be an atmosphere of reciprocal acceptance of this situation. At no point did she seem concerned by the observer's presence, nor talked to the observer at all.

Catherine appeared to be quite independent when the mother was not there. She used to play near the Wendy House and played with both girls and boys. She easily became involved in table activities and was very frequently seen quite involved in her work.

When the mother was present, Catherine did not appear to be basically jealous and in fact was fascinated by the work her mother did on the painting easels. She and another little girl became involved playing with Mrs. Cook in colour combination work and they seemed very pleased and happy. When her mother was absent, there was a particular nursery nurse whom Catherine approached quite frequently but for short periods only.

Mrs. Cook had shoulder length hair and usually dressed in black.

Her English was rich in terms of vocabulary and she pronounced her words extremely clearly.

MRS. KIRBY

Background

Mrs. Kirby looked about 30 years old.

She had had very little secondary education, but it was never possible to find out how much as she was reluctant to talk about this subject.

Mr. Kirby had 'practically finished' his secondary education. He was now working as a builder in some Building Company.

Mrs. Kirby stayed at home all day but wanted to go out to work. She told the observer that she liked coming in to help and looked forward to the day she was expected to come. If not coming in, she explained that she got up and took her son to Junior School and sometimes her daughter to Nursery School and then went home and laid in bed hour after hour. She commented that she did not like doing the washing up nor the cleaning. She felt household chores were a big strain whereas when she came to the Nursery School she got up early and did all the jobs first. This was so that her husband could not say she had not done the housework because she had been at the Nursery School. Her husband did not like her coming to help and he argued that she had to stay at home and 'take good care of the dog'. The days on which she was not expected to come in as a helper were the days she was observed to arrive somewhat earlier than expected.

The Kirbys had a son and a daughter. Mrs. Kirby was observed with her younger child, Susan.

Description

Mrs. Kirby was a mother who was constantly looking for company and wanting to talk both to the staff and the observer. Probably for that very reason, she tended to sit at the same table at which some member

of staff was already involved.

She tried to help and did things and assisted the children on her own initiative. The staff of that room, one in particular, told the observer that they felt the mother was not adequate as a helper because she kept 'telling the children off'. The observer had the impression, that although she spoke in a higher pitched voice than the staff, she was not found to be negative with the children.

Mrs. Kirby was observed to work with two different teachers and her behaviour with the staff was almost always the same. This was not the case with her "Own" child. When with one of the teachers, more than half of the time she was accompanied by her "Own" child. It was not easy to tell whether the girl looked for her mother or whether the mother would not let the girl go.

Mrs. Kirby was always observed to work with the children in cutting out, doing plasticine models etc., but did not read to them and was seldom heard to talk to them.

When other mothers came to collect their children at the end of the day, often she would approach them as if looking for something to talk about.

Mrs. Kirby dressed simply but was always clean. She wore low heels and very little make-up. Her hair was short and curly. Her English was clear although her vocabulary was very poor.

MRS. JACKSON

Background

Mrs. Jackson had finished her secondary schooling and had later been involved working with puppets.

Mr. Jackson had studied at a Comprehensive School and passed his G.C.E.s there.

Mrs. Jackson was initially invited to come to the Nursery School to do some puppet shows for the children. Apparently, this was never really successful, but she came later to act as a helper like the other mothers.

This mother had stopped her puppet work because she had had a baby girl who was still very young. She brought the baby with her to the Nursery School. She sat in her pram and looked around in a lively way. Mrs. Jackson had a nice manner with the baby. Although she became involved with all the children, she would constantly turn round to watch her baby and very frequently she would hold baby in her arms while working with the other children.

Mrs. Jackson was observed with her son, Dean, a young boy who attended for half-days only.

Description

Mrs. Jackson came in to help on a somewhat irregular basis. She had a substantial amount of initiative and easily became involved with teachers, the headteacher and the nursery nurses. She was a very active and lively person. She was good at working with her hands and stimulated the children.

Dean was not affected by his mother's presence when she was helping. He was generally a quiet boy who became easily involved in his work. He played more on his own than in group play. Whenever an adult would read a story he approached them quickly and seemed to really enjoy the stories.

Mrs. Jackson was always wearing trousers and low heeled shoes. She used very little make-up and her hair was short and just combed back. She had very lively and expressive eyes.

HAZEL WAY NURSERY SCHOOL

Organisation

The school was started before the War and is maintained by the Inner London Education Authority.

It is a single-storey building, with three adjacent playrooms linked by a corridor to adjoining cloakrooms, bathrooms and storerooms. A much larger playroom was added in 1972 in order to accommodate the present 160 children, 80 full-time and 40 for mornings only, 40 for afternoons only.

There are four classes, each with a trained teacher in charge, and two Nursery Assistants to help. Each group consists of 20 full-time children and 10 who come for the mornings only, and 10 who come for the afternoons only.

Dinners are provided at 15p per day or free to parents with low incomes. The School has a full-time Schoolkeeper and there is a well-equipped laundry.

All children are given a medical each year, with parent present and any problems referred back to the family doctor. Regular visits are made by the School nurse.

The I.L.E.A. provides an equipment allowance; all equipment is looked after and new equipment is bought after staff consultation.

Admission

Hazel Way Nursery School is for the families of the town in which it is situated, but a few children come from further away as some places are reserved for children of teachers and students.

Children are registered at two years old, ready for admission soon

after their third birthday. Many parents already know of the waiting list but others are advised by Health Visitors and Social Workers. Social priority children do not have to be on the waiting list before admission.

The main purpose of the list is to give an idea of numbers, but it is also to allow the children to visit with their mothers and get accustomed to the school during the pre-entry year. Parents can attend meetings with the staff and headmistress. In the term prior to admission, parents are specifically invited to bring the child for regular weekly visits but only about half the parents accept this invitation.

By the time they are admitted many children are nearly ready to part from their parents but others still need the mother's presence. Children are left for gradually increasing lengths of time until they are in School for the whole session. Except in emergencies, all children begin School on a half-day basis and can have a full-time place if desired by the time they are about four.

In this way it is considered that all children are able to gain the maximum educational benefit from the School. Too long a day, too soon makes a child exhausted and unable to benefit from his experience.

Purposes of the Nursery School

The main function of the Nursery School is to provide education for the children and if necessary, support for the family. Parental involvement is also encouraged because it is considered that the home influence is the most vital in a child's development and parents can be helped to understand their role in their child's learning.

To summarise it is considered that children have emotional, social and intellectual needs, which it is attempted to meet in School and which parents need to understand and meet at home.

The first aim is to help the children settle down happily as no child can benefit from the variety of rich experience which the Nursery School provides, if he does not feel absolutely secure. Secondly, it is important that the child should learn to get on with his peers, and for many children, this is not easy. Lastly, it is intended to try and promote the child's cognitive development. Interesting activities are provided such as water, sand and clay; imaginative play is fostered and art work encouraged. There are also bricks and musical instruments, outside toys and other stimulating equipment. All this is linked with language by the trained Nursery School teachers and trained Nursery Assistants who are trying to bring the children to the stage of verbal reasoning before they start Infants School at five.

Parental Involvement

Parents are always welcome in the Nursery School and help in many ways.

Organisational Help:-

- Fund raising
- Providing waste materials
- Mending and making equipment
- Looking after animals in holidays etc.

Education Help:-

- Settling children in
- Taking part in rota of extra help with children
- Attending parents afternoons and evenings etc.

The School has a small Parents Room, which parents may use at any time. Books are kept there and craft materials, and refreshment facilities

are available. Talks and classes for the parents are arranged and there is a Keep Fit session after school.

There is a weekly Mother/Toddler Play session in the adjacent Health Centre, to which two year olds and their mothers come. This is very popular and about 24 mothers bring their children fairly regularly. This is a valuable opportunity for group play experience and contact with other mothers.

The Nursery School has an Educational Home Visitor, who runs this play session and also visits some families to give support and ideas, to parents with two year olds.

Programme

8.40 - 9.15	Preparation of rooms
9.15 - 9.30	Parents and children arrive, greetings etc.
9.15 - 11.15	Free play, indoors and outdoors. All basic materials are available and some special activities are provided. Children go where they like.
11.15 - 11.30	Clearing up time, with children's help.
11.30 - 11.45	Story-time.
11.45 - 12.00	Morning children go home. Others prepare for dinner.
12.00 - 1.00	Dinner, then quiet activities.
1.00 - 3.30	Afternoon similar to morning.

CUTTINGLYE NURSERY SCHOOL

Organisation

This school is in a modern building and is maintained by the Croydon Education Authority.

It is a single-story building with three playrooms linked by a corridor. The school accommodates about 100 children, 50 full-time, 25 going for the mornings only and 25 for the afternoons only. The children are divided into groups of about 30 each.

This area has a large immigrant population and therefore many of the children coming to the school, and even several of the mothers, do not speak English when they join the school.

Dinner is provided and it is free to a large percentage of the children because they come from low-income families. A well-equipped laundry is also provided.

All children are given a medical each year, with parents present and any problems are referred back to the family doctor. Regular visits are made by the school nurse.

Admission

Cuttinglye Nursery School is primarily intended for families in East Croydon but some children come from further afield. Places are reserved for teachers' children and the children of teachers in a nearby primary school. Priority is given to children who are in special need of attention.

Children are registered at two years old, ready for admission soon after their third birthday. Many parents already know of the waiting list but others are advised by Health Visitors and Social Workers. Social priority children do not have to be on the waiting list before admission.

The main purpose of the list is to give an idea of numbers, but it also is to allow the children to visit with their mothers and become accustomed to the school during the pre-entry year. Parents can attend meetings with the staff and headmistress. In the term prior to admission, parents are specifically invited to bring the child for regular visits but only about half the parents accept this invitation.

By the time they are admitted many children are nearly ready to leave their parents, but others still need the mother's presence. Children are left for gradually increasing lengths of time until they are attending for the whole session. Except in emergencies, all children begin school on a half-day basis and can have a full-time place if they wish, by the time they are about four.

In this way, it is considered that all children are able to gain the maximum educational benefit from the School. Too long a day, too soon, makes a child exhausted and unable to benefit from his experience.

Purpose of the Nursery School

The main function of the Nursery School is to provide education for the children and if necessary, support for the family. Parental involvement is also encouraged because it is considered that the home influence is the most vital in a child's development and parents can be helped to understand their role in their child's learning.

To summarise it is considered that children have emotional, social and intellectual needs, which it is attempted to meet in School and which parents need to understand and meet at home.

Firstly it is aimed to make the child feel secure as he cannot gain from the experiences offered by the Nursery School without this security. Secondly, it is essential he learns to get on well with his peers and this is not easy for many children. Finally, it is intended

to promote the child's cognitive development. There are all the usual interesting activities, toys and stimulating equipment. The trained nursery school teachers and Nursery Nurses link this with language to enable the child to reach a competent level of verbal reasoning by the time he starts Infants School at five.

Parental Involvement

Parents are always welcome at the Nursery School and give much valuable assistance. A coffee morning is organised once a week in the staffroom. Parents are invited to meet here and the staff and the headteacher are also available for consultation. The staff take it in turns to come in so that there are always some to look after the young children for the mothers.

Parents help in the following ways:

Help with outings

A Half-day swimming is supervised by parents and one member of staff

Assistance with Christmas work and arrangements

Help at a Sale

Some parents are encouraged to help the children more directly

Apart from the Coffee morning, there are no other opportunities offered for parents to meet.

Programme

8.30 Prepare rooms

9.00 Children arrive

Free play indoors and outside. Milk during this time

10.15 4 staff take coffee break to 10.30

2 staff tell story and songs and rhymes

1 staff with children not listening to story

10.30 3 staff take coffee break and 2 off duty time,
returning to the children at 11.30

Children - free-play. Music during this time

11.30 Morning children go home

11.40 In each large room - 1 staff help children to set
tables. 1 staff help children in bathrooms and mop
toilet floor afterwards. 1 staff see that children
put outside toys under the veranda, then take the
first ones washed to fetch dinner

11.45 - 12.30 3 staff off duty

12.20 Staff lunch

Children sit quietly for 30 minutes in small groups

12.50 Staff return to the children

1.00 Afternoon children arrive

Free play for the children

1.10 2 staff have lunch to 1.40 (Also Nursery Nurse Students)

Music during this time

Milk for the afternoon children

3.00 All day children go home

Story for p.m. children

3.30 Afternoon children go home

A P P E N D I X N O . I I I

AN ACCOUNT OF THE PRELIMINARY OBSERVATION PERIOD

An Account of the Preliminary Observation Period

The preliminary observation period reported in this account was devised as an explanatory one, or a period of study for clarification purposes.

It is based on information collected from observing a pre-school group in which the focus of interest was some of the interactions held between staff, mothers and children as well as some individual behaviours. It is presented as a write-up. It was carried out within the pre-school setting (indoors) and special attention was given to the following subjects:

- Teacher, a differentiation was made between the trained teacher with professional experience and the teacher in the course of her training period (referred to as TT).
- Mother, a distinction was made between two groups. Firstly, the mothers who stay for a short period while their children adapt to the pre-school. Secondly, the mothers who have remained helping at the school (and receive a small salary) even after their own children have left. They help with the day-to-day activities of the pre-school. The first group will be referred to as "adaptation mothers" and the second one as "mother helpers".
- Children, a distinction was made between two groups. The mother's own child (referred to as "Own" child) and the other children.

The period was designed as a short-term one and lasted from the end of January to mid-March. It was carried out in a pre-school located in

a socially deprived area of East Croydon.

The Aim of the Visits

In general terms, the visits were used to familiarise the observer with the "pre-school world" and also to deduce the best procedure for future collection and analysis of data.

In more specific terms, the interest was to obtain information on how parental involvement, if indeed there was any, was implemented; what was understood by it and how it was carried out. Also it was necessary to ascertain how best to carry out observation specifically on this aspect.

First Visit (Duration 10.10 am to 2.45 pm)

Prior to the Visit: The observer had decided in advance that during this visit she would not take notes (unless absolutely necessary) nor observe children or adults minutely. The intention was to dedicate herself to familiarisation with the general atmosphere of the place and becoming acquainted with the faces as well as distinguishing the occurring behaviour patterns. This had been decided after a one-day visit to another pre-school where soon after her arrival, the observer was confronted by the headteacher announcing all she and her staff did. Her comments sounded like an incomplete list of recommended activities which are widely recommended. Apart from the storytime, none of the other activities which she had mentioned as normal were observed.

During the Visit: On arrival, the observer was received by the headteacher who invited her to wander around while she was dealing with other matters (which in fact she was). She informed the observer that the pre-school staff knew of her visit. She had the impression that both

and staff felt that being visited by a student from the University of London was something important.

The observer was impressed by the number of adults present in each of the rooms. In one of the rooms there were seven adults (other than herself) and twenty-one children at a given time.

Later on, children were divided into two groups. A large group who joined one of the adults entered a small room where (so she was told later) a story was read. A smaller group (4) joined another adult in going through some pages of a book which contained big pictures (later it was established that this was an "adaptation mother"). The children did not seem to concentrate and fidgeted constantly. The rest of the adults (5) suddenly disappeared and the observer was called into the headteacher's room. She appeared to be a very pleasant person who did not seem in the least bit uneasy about the observer's presence and in fact, was very cooperative. She gave information on general activities held with parents and adults involved. The headteacher offered to invite some mothers whom she thought would make interesting subjects for the ensuing study. The observer had described the study in terms of an observation centered on children's reactions to the mother's presence. The offer was declined.

According to plan, for the rest of the morning the observer continued with the unstructured observation.

Lunchtime came and the observer stayed on in a corner and watched. The impression gained was of a period during which adult-child interaction continued.

After having lunch with the headteacher, and receiving more information, the observer decided this could be an interesting place in which to carry out the preliminary observation. Maternal participation was

being implemented (they had two mother helpers who came twice weekly for the whole day and one came during lunchtime for the rest of the week. Mothers were involved working in direct contact with the children during school hours). The pre-school seemed in general terms to offer favourable conditions for observation. It seemed that they had been particularly impressed by some other research workers who had been working there during the last few months. They seemed to regard them as "interesting" people "to whose presence we got used to very quickly". Apart from that, children were used to silent and scribbling observers, who would not become involved in their activities at all.

For these reasons, the observation was continued. It was decided that walking and moving from one place to another would accustom adults as well as children to the observer's presence, so that in future she could observe them at closer proximity and for longer periods without creating a particularly disturbing situation. She was also interested in tracing which would be the best or most suitable position from which to carry out further observation.

After the Visit: The observer felt enthusiastic. She had found a pre-school whose headteacher had some sort of parental involvement and who did not appear reluctant to her visit.

Second Visit: (Duration 10.10 am to 12.25 pm)

Prior to the Visit: The aim of this visit was to stay in closer contact with the groups, while taking some isolated notes. It would be attempted to carry out some observation. The observer felt somewhat concerned about the reactions of adults and children to her presence. She should try and obtain information about the adults' functions.

During the Visit: On arrival, the observer entered the head-teacher's office. After some introductory and trivial conversation, which was considered necessary because of the headteacher's attitude (i.e. she was obviously expecting the observer and had coffee brought immediately and sat next to her), the observer asked for complete information on the adults' characteristics. This was done very cautiously, step by step. Note was taken of all the specifications she gave.

On leaving the office the observer decided to look for one of the spots she had chosen after the first visit (spot 1). Immediately she was impressed by the way in which one of the teachers in training (2nd year) was behaving. She was at a table (those low tables used in pre-school establishments) with a group of (four) children. They were all working silently while she prepared material with her hands (scissors, paper and glue). Not one word was heard coming from either her or the children. Everything was happening automatically. Suddenly, Francoise approached (approximately four years old; Francoise had been pointed out as a "disturbed child", a classification which although not explained further, is widely used, whispered and often accompanied by a grimace). The teacher in training (TT) pointed to the other end of the room and wrinkled her nose. Failing to obey, Francoise approached the TT from behind. As soon as she was aware of Francois's presence, she turned round and softly pushed her away. Francoise started to cry out loud. Whilst blushing, the TT looked up with an inquisitive expression. Her eyes were open wide, her head moving slightly from side to side as if looking for someone. Meanwhile the teacher (trained) in charge of that group approached and while holding Francoise in her arms took her to another table.

Soon after this episode the observer moved to the other end of the room. The TT seemed agitated and realised that everything had been seen.

She kept looking at the observer for brief periods.

From the new position the observer continued to watch the rest of the adults in the room. Apparently her presence did not concern either the adults or the children. (There was one Nursery nurse, one "mother helper" and one "adaptation mother"). All of them, at one time or another would look up and smile briefly at the observer and then continue with their work immediately.

There was a marked tendency for girls to play with girls and boys with boys. That is, except for one boy who followed a girl around for the whole session.

Before leaving, the observer went into the headteacher's office to collect her things. The observer was told that this was the last day for "adaptation mother 1", and "adaptation mother 2" had offered to come and help every Wednesday morning. It was then suggested that for this reason, perhaps Wednesday would be the best day.

After the Visit: Afterwards it was discovered that much of the data registered was incomprehensible. Phrases were incomplete and except for the TT episode, nothing was going to be of much use. This had to be modified. A way of registering useful, or at least comprehensible observations had to be found. Also, it was necessary to acquire a method by which time could be distributed more adequately. The observer had to learn or look for an expeditious way of collecting data.

Third Visit (Duration 10.20 am to 2.25 pm)

Prior to the Visit: The observer had to try out:

- 1) Some provisional and schematic categories she had developed,
- 2) The distribution of her time,
- 3) The use of the stopwatch.

During the Visit: The observer sat at a small table (spot 2) with nobody nearby. She had to start with her notes and try to use the stopwatch. She was working holding the stopwatch in the palm of her hand and covering it with her fingers. (This was as a result of a past experience that stopwatches create curiosity among children). It was soon discovered that although some children (three to four) approached to look at the notes, nobody was interested in the watch. (Probably they had seen the other people working there using one).

The "mother helper" was sitting with the children, working with some cubes. The "adaptation mother" who was expected had been unable to come. The TT was sitting at the same table surrounded by two or three children (who came and went). As soon as she saw the observer she turned away.

Having decided on the centre of interest, that is the "mother helper", the observer decided to find out which would be the best duration for an "observation period". After a while, she was faced with the fact that although the "adaptation mother" could be observed for as long as 20 minutes uninterruptedly, this was not the case with the teacher (trained). Nor did it seem possible with the rest of the staff present. Although the nursery nurse tended to stay within the limits of the room, and therefore it was possible to observe her movements, the teacher kept going out of sight. For the next half an hour it was decided to follow the teacher's activities (in order to clarify this impression). Very shortly afterwards the observer started to follow her visually from one corner to the other and frequently lost sight of her altogether. Although she seemed to attend to the children's requests and even more to please them (as was seen by their faces and movements), she did not stay with one child for more than one minute or a minute and a half. Sometimes, it was

even less than forty seconds. Only once was she seen spending longer at any one thing, and that was when attending an adult, a member of staff from the other group. After this frustrating observation, it was decided to return to the "mother helper" who was just arriving. The category method prepared by the observer was put into practice and seemed very helpful. It was quicker and also meant that it was not necessary to look down at the paper for longer periods than recommended in the literature, when carrying out an observation.

At the end of the morning session children were fetched by their mothers who came in and wandered around the room looking for their child. They helped the children on with their coats and left. The parents' presence did not seem to effect the ongoing activities. The staff were busy cleaning the tables and floor and starting to set the tables for dinner. Shortly afterwards (i.e. 12.45 pm) the afternoon group started arriving. While inadvertently standing near the entrance, the observer was surprised to see that mothers (only two fathers) came in, helped their children with their coats and stayed a while. Some (three) rested on a bench near the door. Two others started to chat while still inside. The two fathers who came, helped their children and left immediately. Two mothers started talking to the nursery nurses and then went into the headteacher's office. As always (as stated by the headteacher and also seen during the two previous visits) three children were playing in there, pretending to pay visits and drink imaginary coffee.

After this short period the observer went into the headteacher's office, called by her. The headteacher asked what had been observed during the day. The observer replied as she always did when asked questions related to the school, with a noncommittal comment. The head continued to ask other questions regarding the children's behaviour.

She said "How was Monica today?" (another of the "disturbed children"). The answer given was that Monica tends to play more with girls doesn't she? From which the discussion turned to the question of girls playing more frequently with girls and boys with boys. When the observer was planning to leave the headteacher asked her about current research into the parental participation idea in general. Some reading matter was suggested and then the observer left. A list giving characteristics of the children had been requested and given to the observer.

After the Visit: When analysing the data which had been collected, the observer realised that although the material was clear and distinguishable, it only led to fragments of information. She was not in a position to recompose interactions and even less so to reconstruct certain behaviour patterns. It was not possible to see what had led to which behaviour. The observer had originally thought this problem was restricted to the time-sampling method, but was faced with the difficulty again here. Although modifications were required for the future sessions rough material had been picked out which could perhaps prove helpful.

During the observation period in which the "mother helper" had been the subject it was possible to analyse that: she had spent almost all the period (10 minutes) in close contact with the children (four). Her group of children had been smaller than the teacher's group (eight to nine). It was easier to analyse the data related to the mother, because she tended to continue in the same sort of activities for longer. When asked a question or spoken to she tended to move back in a signal of response. She did not participate in the "parallel world" made up by adults nor attend so often to a crying or fighting child (only twice). This was not the case for the teacher. It was harder to record her

behaviour as she went from one place to another and spoke to different children and adults for short periods. She frequently changed from one thing to another. When settled to work she talked continuously to the children while preparing material (paper, scissors, glue and paints). She often stood up to deal with other happenings (being called, a child crying) and then she was lost from sight.

Another helper tended to talk to the children constantly and gave the impression of being interested in their stories. She smiled often and four times she touched the children's heads as a sign of approval (or at least that was the impression she gave).

Fourth Visit (Duration 10.25 am to 2.10 pm)

Prior to the Visit: During this session the observer decided to allocate more observation time to the "mother helper" in order to try out a new way of registering. This decision was taken because up to then, she had been the best subject of observation whom had been registered. Prepared abbreviations were to be used for complete as possible sequences of behaviours. These periods would be short, not more than three to five minutes each and an attempt made to note their temporal occurrence.

It was decided to carry out the observation closer to the subjects and to stay for both the morning activities and the lunchtime.

During the Visit: As soon as she arrived, the headteacher called the observer into her office commenting that she had not been able to find the suggested articles. She expressed an interest in having parents "come and chat among themselves" for a morning once a week. She said she felt that they needed something like this because "they feel

on the whole too lonely". She wondered how she could manage to offer a room but thought that would not be easy. The observer left offering to bring some articles with her when she made her next visit.

Sitting near one of the tables at which the "mother helper" was working with a group of four children, the observation started. The "mother helper" looked at the observer twice when the children had said something amusing and smiled as if sharing a common experience. The observer's presence did not appear to cause her any discomfort. (The observer wondered whether she was being too subjective because she herself is a mother. How could this question be dealt with in the future, she wondered).

An attempt was made to register sequences of behaviour in as much detail as possible.

A table at which the teacher was supervising the children's lunch was observed for 20 minutes of the lunchbreak. This was followed by an observation of the table with the same "mother helper" being made for 15 minutes. The observer was impressed by how interactive the lunch period seemed to be. After lunch basically the "adaptation mother" and her son were observed. (This was her second period at the school. She had brought her daughter the year before and stayed for some mornings). The boy wandered around without playing or talking to others. He did not join the group working with cubes. He had taken a mountain-climber's costume from the school fancy-dress box and wearing this went from one corner to another (Data on his behaviour is very unsystematic). While his mother sat reading a story to two other children, he approached her, ensured she noticed him and left again. The "adaptation mother" stayed for about twenty minutes with the two other children, one being a boy and one a girl. The girl stayed close to her all the time, either between her legs or sitting on her lap. The mother touched her hair affectionately.

She smiled at the children and answered their questions by raising her voice and opening her eyes widely. Her son was the only cause of interruption during this period.

After the Visit: Going through the data collected, it was seen that it was clearer and some behaviour sequences could be followed. Analysing it in detail it contained indices indicating that the "adaptation mother" had been to a certain extent different from the "mother helper" and the behaviour of both differed from that of the staff. An example of this was that the "adaptation mother" would not initiate interaction herself but was more receptive to children's initiations, other than those of her "Own" son. Whilst the "mother helper" would initiate interaction and be in general more proponent, both mothers tended to be with smaller groups of children and stay with them for longer than the teachers did.

Perhaps, it would be interesting to try and learn how to use the Patterson's Model (1975) of recording where he implements the idea of first and second order behaviour. Patterson uses it when more than one behaviour occur simultaneously and this was experienced here at lunch-time. The observer also thought she should look for mothers in different groups.

Fifth Visit (Duration 10.30 am to 12.20 pm)

Prior to the Visit: It was planned to observe "mother helpers" and "adaptation mothers" in order to decide whether in the future it would be necessary to distinguish between them when comparing mothers' behaviour towards children with that of teachers.

During the Visit: On arrival the observer entered the headteacher's office and gave her the promised articles. The headteacher seemed pleased and said she had decided to start the mothers' morning and they could use her office.

When the observer then went into the children's room there were seven other adults present. She was impressed by the fact that the TT was for the first time working with eight children round her table. She was preparing material very actively and answered the children in monosyllables, occasionally pointing and smiling. The TT suddenly stood up and picked up one of the little girls beside her in an amused way. The child looked tense and did not look up. The TT continued to hold the girl tightly while she evidently was struggling to get down. At this moment she was approached by a woman whom the observer had not seen before. The new adult held a short conversation with the TT and looked pleased. Shortly after the adult had left she unexpectedly put the girl down but the girl remained at her side as if prolonging the contact. However, the TT turned round and roughly squeezed the girl's arm. She in turn shouted and was quickly picked up and taken away by the "mother helper" in charge of the group. Later, it was explained that the new lady was the TT's supervisor who had been on a supervising visit.

Although the observer had the impression that everything was running smoothly throughout the rest of the morning and the atmosphere was pleasant, it did seem as if the occurrences were very mechanical. The staff tended to devote their time to the preparation of material. This was particularly the case for the teacher and the TT. It appeared that the adults and children (except for the two "mother helpers" and the "adaptation mother") made up two "parallel worlds" which could only meet when the children were in need of something.

The children tended to request the staff's attention by calling out aloud, saying "Teacher", or by touching the adults when sitting or pulling their clothes when they were standing. (The headteacher was the only adult who asked the children to give her a name, saying "better to call me Mrs.").

Girls tended to play with girls and boys with boys. Children were not made to sit at their tables and tended to wander around permanently, sometimes shouting, running, singing and frequently dressed up in the pre-school's fancy dress costume. (Girls wore dresses and boys usually some sort of hat or cap. The girls tended to argue over the wedding dress). One of the immigrant boys could be seen (it was noticed three times) walking around practically all morning with a suitcase in one hand and a briefcase in the other. He filled it up with school toys and then put them back. The observer asked the headteacher for the school's timetable (which appears on page 260) because of the apparent lack of individual attention being given to the children and as they were not set to work.

It was noticed that the "adaptation mother" would touch the children when they approached. When explaining something, she touched their heads, held them close to her or held their arms. She very often had a girl sitting on her lap and tended to be more with girls than boys. Noticing this, the observer returned to observing the teacher with regard to her physical contact with the children. It was seen that she sat close to the children but they were on their own chairs. She did hold one girl who was crying in her arms and calmed her down. Once she sat one of the girls (defined as "disturbed") on her lap after this child had been annoying two boys who were playing quietly in the Wendy house and was finally pushed out by one of them.

After that the observation was centred on the "mother helper". Although she frequently touched the children's heads, and often looked

at them face-to-face, she did not cuddle them on her lap. However, whenever they addressed her she smiled at them.

After the Visit: When looking over her notes, the observer had the feeling that her impression of the two "parallel worlds" was to some extent corroborated. Recordings showed that the staff were permanently occupied picking up things, arranging others, clearing up tables and constantly cleaning floors and table covers. Not more than 12 to 15 minutes direct work or talk with the children was recorded. Their activities were forever being interrupted. It was thought that it would be interesting to make a distinction between the two groups of mothers observed, i.e. "mother helpers" and "adaptation mothers".

Sixth Visit (Duration 10.25 am to 12.50 pm)

Prior to the Visit: At no time during this period was one aspect observed to the exclusion of the others. However, having read some articles on imitative behaviours (suggested by Dr. Berger as an aspect of possible interest), it was decided to centre the interest on that aspect. It was planned to observe or try to see what aspects of behaviour were susceptible to differentiation and how that could be noticed.

During the Visit: On arrival the observer saw a notice on the front door inviting parents to attend on Thursday mornings. It said that they could bring their "toddlers" and the staff would look after them. The headteacher seemed pleased. She returned the articles and said she had found them most interesting, asking for more suggestions for reading matter or books to buy in order to have something available for parents to be interested in.

As usual, a few children approached the observer, looked at her, then left again. No answers were given to their questions, just a quick smile (and it is debatable whether they regarded this as a smile at all).

During the morning activities the observation was started. It suddenly became apparent that much of what was happening between the "mother helper" and a girl with whom she was playing with dough could be regarded as traits or symptoms of what was understood to be imitative behaviour. The observer was interested in the "mother helpers' " behaviour because she had the impression that one in particular seemed to behave very much like the teacher. This impression was not a direct result of observation, but more from contemplation of images after the last visits.

Knowing that the lunchtime was especially rich in interaction between adults and children, the observer sat as close as she could to the "mother helper's" table. Everything she said seemed to resemble what could be remembered of the teacher's conversation. Except for her frequent smiles and occasional touching, her words and phrases sounded like "imitation". After that it was decided to be near the teacher's table to try and corroborate this impression as much as possible. Some of it was as imagined but not all of it.

After the Visit: The observer left feeling that she had to try and look for a way by which to observe imitation adequately. She thought perhaps that by taking note of temporal sequences as had been tried on a previous visit, at least the order of the behaviours and the way in which they occurred would be indicated. In order to do this, however, it seemed the sessions would have to be longer as all imitations were not necessarily repeated immediately after the model's action.

Apart from that, the impression was that with time "mother helpers" (three years of experience) had learned from the teachers how to address children or perhaps being motivated towards this sort of work, mothers would be inclined to do as the teacher did in her role. For this, the best way would be to create a different setting in which in the later research mother helper adaptation could be separated from mother-teacher. Another interesting aspect would be to follow an "adaptation mother" who would continue in the school after the child had left and be incorporated in what had been defined as "mother helper". How would she change in time, if indeed she did change.

Seventh Visit (Duration 10.30 am to 12.30 pm)

Prior to the Visit: It was planned to try and solve some of the questions which arose in the last session.

During the Visit: On arrival the observer noticed that the notice on the board had been changed. The new version read that there would be a Thursday morning and afternoon session for mothers. Otherwise it remained as before. The headteacher saw the observer by the window and approached her saying how successful the coffee morning had been last Thursday.

She left and went into the big room. It was a very cold day and it was raining heavily. There was a tense atmosphere. Children were whining or crying constantly, demanding and unruly. A new child had arrived with his mother. She stayed for more than half an hour, sitting by the rabbit cage with her son and a girl who sat there for a very long time. They talked the whole time amongst themselves but did not join in with the others. Afterwards the mother accompanied both children to the

toilet and then took them to the painting easels. First she helped her son with the painting apron and then the girl. She helped them with the brushing and showed her son how to wet the brush in the paints. She stood there until they had finished. She often turned and smiled at whoever was close by but never requested anything from anyone.

The children had to stay inside all morning as outdoor activity was out of the question due to the weather. (During other visits children played outside accompanied by an adult. Children and adults taking it in turns to go outside). The school doctor had come for a visit and stayed right up to lunchtime.

Although the new "adaptation mother" could be seen, nothing else could be achieved and the morning could, on the whole, be regarded as unsuccessful as far as observation was concerned.

When the observer was on the point of leaving the headteacher invited her to join her for a coffee. She asked the headteacher about "morning coffee" as the Thursday morning session had been named. Questions were posed on age, sex and social class composition of the children whose mothers attended (six). (Soon it was apparent that the vital aspect had not been asked. What was skin colour and country of origin?) Believing that she was answering the question originally posed by the observer, the headteacher explained other aspects mentioning how pleased the mothers had been about having this "morning coffee". Finally, it was realised from the description that the group consisted purely of non-coloured English mothers. The observer then asked about the colour combination of the "mother helpers" as well as how the "adaptation mother" plan was implemented. The headteacher said that mothers were visited from a list of names, by her or one of her staff informing them that they had a space available (the waiting list was very long). Priority was given to coloured, immigrant, and "disturbed" children, as well as one-

parent family children. The intention however, was to retain a good balance by accepting as many "normal children" (as she called them) as "special case" ones. After repeated questioning, it was found that only white mothers came to help. She stated that the staff were rather selective and although some mothers showed interest and cooperated during their children's adaptation period, the staff did not consider them to be "adequate". Further examples were asked for and the headteacher mentioned different aspects such as their spoken English was not suitable for the children and therefore, they were not invited to stay. As a result of this it was evident that coloured mothers had never worked as helpers nor had any other immigrant mothers; in fact no mothers other than white ones of Anglo origin. The non-white, non-Anglo mothers, although invited to come to their children's adaptation period were unwilling. Some would stay when specifically invited and motivated, but would decline to come after one or two days. West Indian mothers would not stay for more than an hour or two and would rather not stay at all. The same was the case with Indian mothers. Non-English speaking mothers (Spaniards and Italians) declined to come as well when they were invited to attend the adaptation period.

After the Visit: After leaving, thought was given to the weather which had had an important influence on the day's happenings. It would therefore be necessary to control it in further research. Behaviour had differed from the other days and analysis could not disregard this aspect. Perhaps it would also be necessary to control other variables such as age, sex, social class and time of attendance at the pre-school plus any other pre-school experience. The observer was not sure how to deal with those children labelled as "disturbed". Should she leave them out when analysing

the other children or the mother's interaction with her "Own" child? It would also be absolutely necessary to control several variables on mothers who acted as helpers, mothers who stayed during the adaptation period, teachers and children. Would the adaptation period be long enough to consider it as a different possibility in the definitive research.

When preparing the definitive behaviour categories, it seemed very important to consider two categories which had appeared as relevant up until then, i.e. physical contact and imitative behaviour.

Analysing the sequences collected an interesting finding was that those behaviours from the "Own" child which provoked certain reactions in the "adaptation mothers" differed from the ones other children had to do to make her react. It would perhaps be worth extending this analysis to mother-other children, mother-"Own" child, teacher-"Own" child, teacher-other children. Previously it had been proposed that mother-teacher interactions should be analysed but it was then discovered this was not possible. Interaction took place at a considerable distance and the content was inaudible to the observer. It seemed that certain aspects remained unanswered.

A P P E N D I X N O . I V

THE CODING SYSTEM USED IN THE STUDY

The coding system presented in this Appendix was designed to describe behaviours observed during the course of free-play periods inside the classroom setting. This time-sampling procedure provides scores for the activities and interactions in which adults were observed (e.g. teacher playing with plasticine with girl; mother talking to teacher). This also refers to the styles used in the interactions between adults and children (e.g. mother tells off her "Own" child; teacher calls the attention of a boy).

1. General Instructions for Observers

1.1. Recording Instructions

The time adults spent outside the room was not considered as part of the total observation periods per adult.

1. The time-sampling cycle is 60 seconds in length and consists of a 10-second observation period and a 50-second recording period.
2. All activities occurring or starting to occur within the observation period should be recorded. Those activities which begin before this period are not recorded. It may be necessary to observe for slightly longer than the 10-second observation period in order to recognise the activity.
3. When adults change from one activity to another, these are coded separately. In the case of "Children Activities" they are considered as ended if the subject changes or when adult or child moves away, although the activity could remain unaltered.

4. The adult who is the focus of attention must be defined in advance. There are five possible conditions:

mother when alone

mother with teacher present

teacher alone

teacher with mother present

nursery nurse with teacher present

(the subjects of observation are underlined).

5. An "observation spot" in the classroom was defined during the pilot stage. In order to remain as unobtrusive as possible, the observer remains quietly in this position throughout the observation period.
6. The observer does not speak to, smile at or otherwise interact with children and as far as possible, this is extended to adults. Behaviour directed to the observer by adults or children is not recorded.
7. Before starting a new recording sheet, certain indications must be filled in: school, group, subject, setting, weather, time, date, other (e.g. presence of another adult).
8. At all instances in which involvement is with "Own" child, this should be recorded.

1.2. Coding Instructions

This scale involves using the coding priority criteria (see Section 1.3., Chapter 3). First check which activity of those which took place within one observation period is the one to be coded. Then proceed to the coding.

1.3. Definition of Categories

All categories refer to teachers', mothers' and nursery nurses' involvement in the different activities.

Non-Children Activities (N. Ch. Ac.)

Activities in which no children are involved are coded as "Non-Children Activities". If children are actively involved in any of them together with the teacher, they are then coded as "Children Activities".

Housework and Dealing with Equipment (H.E.)

This code includes cleaning up after (e.g. washing up milk beakers, wiping floors), clearing away (except for play equipment), fetching and taking away mid-morning snacks. This code also includes gardening and dealing with pets. It is not always easy to differentiate between housework and dealing with equipment, in which case the activity must be observed for longer. This code also includes the preparation for and clearing up after activities. It includes preparing, making, taking out, putting away, decorating and fixing equipment. It also covers writing names on children's work, looking for books on the shelves and giving out material to the children.

Interaction with Adults (I.A.)

This code includes involvement with other members of staff, visitors, observer or parents as long as it takes place inside the room.

Children Activities (Ch. Ac.)

Activities in which children are involved to any extent are called "Children Activities".

Indirect Contact (I.C.)

This code covers the doing of chores and supervisory activities.

Chores includes all duties concerned with assisting children, such as helping a child to dress or undress; toilet supervision; wiping noses; looking for tissues; doing up shoes;

First Aid; serving or offering drink or food. This category refers to actually carrying out these tasks.

Supervisory activities includes calling children for their milk or calling them to story time; telling children to put on their coats or aprons. It covers activities such as lifting children up to help them to reach something; placing a child's chair; ensuring children drink their milk.

Direct Contact (D.C.)

This code covers working, playing or holding social interactions with children. Working or playing with children includes all activities carried out together, with or without materials. It requires adult and child to be actively involved. When adult is in charge of play or giving turns, although not actively involved, code this category.

Social interaction includes both verbal and physical contact covering from response to appeals for help or assistance, either verbally or by standing in close proximity and looking on, to any intentional physical contact between adult and child (e.g. sitting on knee; cuddling; putting arm round; touching hair). When adult takes child by hand or carries him from one side to the other rather than showing affection, this category will not be used; use indirect contact instead.

No Activity (No Ac.)

This code covers observation periods during which adults are not seen involved in any activity (e.g. wandering in the room; looking distractedly out of the window) and playing on their own (e.g. playing with plasticine with no children around).

1.4. Definition of Styles

Both categories referring to Style include teachers', mothers' and nursery nurses' interaction with children. It covers both physical and verbal contact.

Negative Interaction (DC-)

This category covers the avoidance of interaction (e.g. walking in one direction and stepping aside when a child appears). Refusal to obey a request or demand given by a child, reprimands and threats. Also it includes rejection of physical affection from children (e.g. rejecting arm round; moving head away).

Positive Interaction (DC+)

All social interaction either verbal or physical which is not coded under "Negative Interaction" should be coded under this category.

1.5. Unclassifiable

This category covers all those activities which the researcher could not observe properly. Also all those activities and interactions which were not observed during the pilot stage.

SCHOOL: X SUBJECT: Teacher WEATHER: Wet DATE: - *
GROUP: Y SETTING: Teacher Alone TIME: am OTHER: 1 nursery nurse present

R E C O R D I N G S		C O D E S
Teacher talking to boy (white); holding materials and puts them away		
Teacher at sink using cloth; has a word with boy (white) about a painting		
Teacher talks to boy (white)		
Teacher putting paper on easel, goes into washroom, wipes basin; puts ^{on} apron and talks to boy (white)		
Teacher wiping aprons; wiping basins in washroom, chatting to mixed group of children		
Teacher alone in washroom wiping basins		
Teacher turns on tap and tells girl (Asian) to wash her hands; cleaning bowls		
Teacher talking to nursery nurse; goes to sink and rinses out cloth		
Teacher adjusts airtight of paintings; wipes floor; rinses cloth at sink		
Teacher at table with doilies; chats about doilies to children (mixed group)		

SCHOOL: X SUBJECT: Teacher WEATHER: Dull DATE: -
GROUP: Y SETTING: Teacher with Mother TIME: pm OTHER: 2 nursery nurses present

R E C O R D I N G S		C O D E S
Teacher arranging doilies, cutting them out, alone		
Teacher cutting out doilies, hanging them on wall		
Teacher arranging doilies, talks to three boys (white) about shells		
Teacher talking to two boys (white) about coral shells, demonstrating how they grew		
Teacher adjusting boy's braces' button (white); resumes cutting out doilies		
Teacher smiles at boy (white); cutting out doilies		
Teacher chatting to two boys (white); looking round to check on other children		
Teacher cutting sellotape and sticking pictures on wall; not watching group		
Teacher chats to two girls (1 white, 1 coloured); talks to one boy (Asian)		
Teacher glances round at group		

SCHOOL: X SUBJECT: Mother WEATHER: Wet DATE: -
GROUP: Y SETTING: Mother Alone TIME: pm OTHER: 2 nursery nurses present

R E C O R D I N G S		C O D E S
Mother at plasticine table, 1 girl (white); "Own" child approaches and talks to mother; surveys group		
Mother at plasticine table, with "Own" child; touches "Own" child; talking to other children (mixed group)		
Mother at plasticine table, talking to "Own" child and other boy (white); looks around at group		
Mother at plasticine table, talking to two boys (white); looking around at group		
Mother at plasticine table, watches one girl (white) opposite her; talks to other children; looks at group		
Mother at plasticine table, talking to other boy (white), laughs with him		
Mother gets up, goes into small room with one boy (white) and does up his shoe laces, not talking		
Mother in small room getting materials and packing them away		
Mother at plasticine table; talking to one girl (white); looking at whole group		
Mother at plasticine table; talks to boy (white); looks at whole group		

SCHOOL: X SUBJECT: Mother WEATHER: wet DATE: -
 GROUP: Y SETTING: Mother with Teacher TIME: am OTHER: 1 nursery nurse present

R E C O R D I N G S		C O D E S
Mother at plasticine table, talks to one boy (white)		
Mother at plasticine table; glances round group; looks at "Own" child who approaches her		
Mother talks to one boy (white)		
Mother watches whole group		
Mother plays on her own with plasticine		
Mother at plasticine table, talks to girl (white); watches whole group		
Mother fixes paper for "Own" child; writes his name on it; they talk		
Mother tidying milk bottles and mats		
Mother tidying milk bottles; talks to one boy (white)		
Mother carried milk tray		

SCHOOL: X SUBJECT: Nursery Nurse WEATHER: wet DATE: -
GROUP: Y SETTING: Nursery Nurse with Teacher TIME: am OTHER: 1 other nursery nurse present

R E C O R D I N G S		C O D E S
Nursery nurse talks to one girl (white); puts plasticine away		
Nursery nurse rinses cloth; talks to "Own" child, does up his shoe-laces		
Nursery nurse wiping tables; wiping aprons		
Nursery nurse talks to teacher; goes into washroom and washes girl's hands (white)		
Nursery nurse talks to mixed group children; looks around		
Nursery nurse peeling apples; talks to other nursery nurse		
Nursery nurse at "Lego" table playing with mixed group of children		
Nursery nurse at "Lego" table playing with mixed group children		
Nursery nurse at "Lego" table with two girls (white); surveys other children		
Nursery nurse goes into washroom and washes girl's hands (Asian)		

A P P E N D I X N O . V

THE QUESTIONNAIRE

THE QUESTIONNAIRE

Purpose

The questionnaire was issued after the observer had visited several pre-schools located in socially deprived areas and found that only two had mothers involved working inside the classrooms in direct contact with the children. These mothers had been invited to come into the settings with the idea that they could interact with the children. As the involvement of mothers had been extensively suggested in the literature, it was thought prior to the visits that pre-schools would be implementing this idea. The visits showed that in fact the opposite was the case. In several schools mothers were found occupied with chores, mainly outside the classrooms, but not involved with the children.

The questionnaire was issued in order to try and discover how widespread was the practice of mothers' involvement. Also to find out the nature and extent of their deployment in the pre-school settings. This was considered to be a necessary step in obtaining the most complete and accurate picture possible.

Although questionnaires have been thought of as a somewhat unreliable method, in this case it had the advantage of being the most economical way to gather the information. It also ensured that identical questions were posed to all concerned and thus enabled a comparative analysis to be made.

Areas Covered

The areas covered were only those which were easily accessible to the observer, i.e. South-East England. The social and economic characteristics of the different areas covered were not known. The responses

were sent anonymously.

The intention was to cover all nursery schools and classes in four geographical areas maintained by local education authorities.

Procedure

Questionnaires were sent to all those nursery schools and classes located in East and West Sussex and also Surrey. In London, however, a randomly selected sample was used according to I.L.E.A. recommendations.

Firstly the education authorities were approached and shown a draft format for their approval. The format (see pages 300-302).

was accepted by all but the London area. The I.L.E.A. requested the deletion of questions related to racial origin. The revised questionnaire (see pages 300 - 302) was then distributed. Between November, 1977 and February, 1978, headteachers returned the completed questionnaires. It was impossible to evaluate the accuracy of the headteachers' answers. Although this was the sole screening instrument used, it was thought to be adequate because of the exploratory nature of the study.

Analysis

West Sussex was not considered in all the analyses because of the reduced number of pre-schools maintained by the local authority.

The data were analysed according to the following criteria:

1) All completed questionnaires, 2) Nursery schools versus nursery classes, 3) Within area analyses. Data permitting, statistical analyses were carried out. Two tests were used, Fisher Exact Probability Tests and Kolmogorov-Smirnov Test, in both its forms (Siegel, 1956).

Data were combined in different ways according to the information sought.

The number of replies were in accordance with the usual response rates for postal surveys (Kerlinger, 1973), the highest response came from Surrey (75.55%) and the lowest from London (52.50%) (see Table V.3., page 299).

1) All completed Questionnaires

Surrey showed the highest percentage of mothers (47.06%), London the lowest (28.57%) (see Table V.3., page 299). Mothers tended to take part more frequently during the morning rather than the afternoon sessions (see Table V.1., page 298). They were more likely to spend more time in the room of their "Own" child than move from room to room (see Table V.2., page 298). Most attended one or two sessions per week (33.33%).

The statistical analysis showed no significant differences.

2) Nursery Schools versus Nursery Classes

There were more mothers involved in nursery classes in Surrey (48.15%) and in East Sussex (36.36%). In both kinds of nurseries mothers mainly worked in the same room as their children. In nursery classes they changed rooms, in nursery schools the opposite was the case. In nursery schools mothers worked preferably during the mornings (50.00%). In nursery classes they showed no real preference for either session.

Preference was shown by mothers for one or two sessions per week in nursery schools (66.66%), in nursery classes, two to three sessions were preferred (28.57%).

The statistical analysis showed no significant differences.

3) Within Area Analyses

- London: Both kinds of nurseries completed approximately the same number of questionnaires (see Table V.3., page 299). In London the involvement reached 28.57%. Nursery schools (40.00%) appeared to have more mothers than nursery classes (25.00%). In London there seemed to be no preference for morning or afternoon sessions, nor for rooms. More mothers were involved in the room of their "Own" child.
- East Sussex: 75.00% of questionnaires were answered. Nursery classes (84.62%) completed more than nursery schools (33.33%). Mothers were involved in 33.33% of the establishments. They worked preferably in the room of their "Own" child, and preferred morning to afternoon sessions.
- Surrey: 75.56% of questionnaires were answered. Of these, 47.06% had mothers involved, nursery classes having more than nursery schools. No clear preferences appeared for the rooms in which they worked nor for time of day. Attendance for one or two sessions per week was most common.
- West Sussex: It was impossible to produce any figures because this education authority only reported the existence of four establishments.

Three of the questions provoked so little response that any analysis of them could be misleading. These were the questions on racial origin, training and number of mothers present in a room at the same time.

It must be borne in mind that apart from in London, there were very few nursery schools and classes in the areas studied. Consequently, consideration of percentages alone give misleading results. However, they were used as a means of obtaining comparable information.

TABLE V.1.

	N.C.	N.S.
AM = PM	16.67	38.10
AM > PM	50.00	33.33
AM < PM	33.33	28.57

TABLE V.2.

	N.C.	N.S.
OWN	31.58	50.00
DIFFERENT	26.32	16.67
ALTERNATED	42.11	33.33

TABLE V.3.

	LONDON			SURREY		
	N.C.	N.S.	TOTAL	N.C.	N.S.	TOTAL
No. QUEST. SENT	31	9	40	38	7	45
% RESP.	51.61	55.56	52.50	71.05	100.00	75.56
% INV.	25.00	40.00	28.57	48.15	42.86	47.06

TABLE V.4.

	EAST SUSSEX			WEST SUSSEX		
	N.C.	N.S.	TOTAL	N.C.	N.S.	TOTAL
No. QUEST. SENT	13	3	16	-	4	4
% RESP.	84.62	33.33	75.00	-	50.00	50.00
% INV.	36.36	-	33.33	-	50.00	50.00

QUESTIONNAIRE

INTRODUCTION

This questionnaire will be sent to all Nursery Schools and Nursery Classes throughout London, Surrey and Sussex. The aim is to obtain information on the amount of parental involvement and its characteristics.

For the purpose of this questionnaire "Mother Helpers" will refer only to mothers of children currently attending the Nursery School/Class and who work/help with the children during school activities, on a voluntary basis. It does not include those mothers who are members of the staff, i.e. teachers, helpers, cooks, typists. Only complete weeks should be taken into consideration.

PLEASE ANSWER EVERY QUESTION

NAME OF SCHOOL (Please state whether Nursery School or Class)

FULL POSTAL ADDRESS

1. Please state the total number of children currently registered at your Nursery Group

.. .. []

2. Please indicate how many of these children are:

Full Time [] Part Time [] a.m. [] p.m. []

3. Please state whether you have any mother helpers who work/help with the children in the Nursery Group during pre-school activities.

Yes [] No []

IF YOUR ANSWER IS "YES", PLEASE CONTINUE TO ANSWER ALL QUESTIONS.

IF YOUR ANSWER IS "NO", PLEASE OMIT QUESTIONS, 4, 5, 6 & 7, AND CONTINUE WITH QUESTIONS, 8 & 9.

4. How long have you had mother helpers working/helping with the children in the Nursery Group?

.....

5. For each half-day session your school was open during the last 2 weeks, please indicate the number of mother helpers present with the children in the Nursery Group. Please indicate how many were in each classroom for both the morning and afternoon sessions.

Table with columns: Mon., Tues., Wed., Thurs., Fri. and rows: Room 1 a.m., Room 1 p.m., Room 2 a.m., Room 2 p.m.

5. (cont.)

		Mon.	Tues.	Wed.	Thurs.	Fri.
Room 3	a.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	p.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Room 4	a.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	p.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Taking each mother helper who was present with the children in the Nursery Group during the last 2 weeks for at least one half-day session, please indicate her qualifications or training.

Mother Helper	Nursery or Inf. Teach. Qualification	Other Teach. Qualifications	Nursery Nursing (NNEB) Qual.	Nursing (SRN etc) Qual.	Play Group Course*	Not Known	None of These	Actually on Course**	Other Qual./Training Please specify
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Only include Play Group Courses totalling 20 hrs. or more.
 ** If a person is on a Course at present, but not yet completed it, tick here.

If more than 4 mother helpers, please continue on the back page.

7. For each mother helper present at least one half-day session during the last 2 weeks, please indicate in which room the mother helper works/helps.

Mother Helper	Room with Own Child	Room with Different Child	Alternated
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If more than 4 mother helpers, please continue on the back page.

8. Apart from working/helping with the children in the Nursery Group at your school, are parents involved in any other way, such as fund raising, P.T.A., helping with Outings etc.? Please give details. Please state if you are referring to information on the Nursery Group or the rest of your School.

.....
.....
.....
.....
.....

9. I would be very grateful for any further details you would care to give regarding parental involvement with your Nursery Group at your School.

.....
.....
.....
.....
.....

IT IS MOST IMPORTANT THAT THIS QUESTIONNAIRE SHOULD BE COMPLETED AS SOON AS POSSIBLE.

PLEASE SEND TO: M. A. K. ECHEVERRIA,
3 SMOLLETTS,
EAST GRINSTEAD,
WEST SUSSEX,
RH19 1TJ.

THANK YOU VERY MUCH FOR YOUR HELP AND CO-OPERATION.

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KEY

1. ACTIVITIES

Ch.Ac.	Child-centred activities. Conformed by adult-child direct and indirect contact.
D.C.	Adult-child verbal or physical direct interaction, e.g. holding hands, working at a puzzle.
I.C.	Doing chores with children; supervisory activities, e.g. doing up shoe laces, ensuring children drink their milk.
N.Ch.Ac.	Non-child-centred activities. Conformed by doing house-work and/or dealing with equipment and interaction with adults.
H.E.	Dealing with equipment and/or doing housework, e.g. wiping tables, doing plasticine.
I.A.	Conversation held between adults inside the rooms, e.g. mother asking teacher, nursery nurses talking to mothers.
No Ac.	Not involved in any activity, e.g. wandering in the room, staring out of the window.

2. STYLES OF INTERACTION

DC+	Positive or neutral verbal or physical direct interaction between adult and child, e.g. praising a child, conversing with a child.
DC-	Negative verbal or physical direct interaction, between adult and child, e.g. moving arm away from touch of a child; telling children off.

3. CONDITIONS

(T) Condition One	Teachers without mothers in the room.
(TwM) Condition Two	Teachers with mothers present in the room.
(M) Condition Three	Mothers without teachers present.
(MwT) Condition Four	Mothers with teachers present in the room.
(NN) Condition Five	Nursery nurses, teacher in the room out of sight from observer.

4. "OWN" CHILD - OTHER CHILDREN

"Own"	Children whose mothers were involved working in the same room their children normally attended.
Other	All other children observed in each of the rooms in which mothers worked.

5. SUB-GROUP ADULTS

Imposed - Mothers	Mothers invited to work by headteachers.
Accepted - Mothers	Mothers invited by the teachers.
New - Mothers	Mothers involved after the pilot stage had finished.
Old - Mothers	Mothers involved before the pilot stage started.
High - Teachers	Teachers referred to as good by the headteacher.
Low - Teachers	Teachers never referred to by headteacher.
New - Teachers	Teachers who started to work after the pilot stage had finished.
Old - Teachers	Teachers who were working before the study started.
New - Nursery Nurses	Nursery nurses whom the observer thought were younger.
Old - Nursery Nurses	Nursery nurses whom the observer thought were older.

6. SUB-GROUP CHILDREN