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LINDA ROBINSON

PARENTS' AND TEACHERS' PERCEPTIONS OF HEARING  
IMPAIRED CHILDREN IN PRIMARY SCHOOLS

ABSTRACT

The aim of this study was to consider the perceptions of parents and teachers of hearing impaired children who were integrated into ordinary primary schools. These perceptions, and the responses made to the children, were considered to have significant influence on their ability to function effectively, since the social climate in which a child finds himself affects the development of a positive self-concept and consequent attainment and adjustment.

In the research design, quantitative methods were seen as inappropriate, and interview techniques and classroom observations were used to gather illustrative material from a small opportunity sample.

The investigation indicates that most of the children were viewed very favourably by their parents and teachers. Parents were very supportive of their child's placement and were aware generally of the implications of hearing impairment. They expressed concern over inadequate technical support, the heavy case-load of the peripatetic service and the lack of awareness of the implications of hearing loss on the part of the general public. Despite the fact that the teachers had no previous experience nor any training, some were able to respond most appropriately, and this appeared to be due largely to their general philosophy and to the unique value they placed on the social, emotional and educational development of the individual child.

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PARENTS' AND TEACHERS' PERCEPTIONS OF HEARING  
IMPAIRED CHILDREN IN ORDINARY SCHOOLS

Volumes 1 and 2

Volume 1

Linda ROBINSON

Thesis submitted in fulfillment of the  
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VOLUME TWO

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## INTRODUCTION

## INTRODUCTION

In recent years there has been a significant increase in the number of severely hearing impaired children being placed in ordinary schools (Taylor 1981). This trend has gathered momentum, not just through the philosophy of the Warnock Report (1978) and the legislation embodied in the Education Act 1981, but also as the result of many other factors.

"It seems likely that there will be a growing trend to integrate more severely hearing impaired children in ordinary schools. A stringent economic climate, pressure from parents, a concern for early diagnosis and intervention, developments in hearing aid technology, such as radio aids, and changes in philosophy reflected in the 1981 Education Act have all increased the possibilities for even the more profoundly impaired children."

(Webster 1986 p.5)

These factors, outlined by Webster, have had a significant effect on the move to integrate even severely hearing impaired children into ordinary schools.

A benefit of integration viewed as very important, by both parents and teachers alike, appears to be the opportunity to be educated in the hearing world.

"It is believed that through educational integration the deaf child will be helped to acquire oral language, come to understand the nuances of everyday social life and develop a self-conception that he is normal."

(Lynas 1984 p.129)

This has become possible, because, as a result of societal changes and technical innovations, hearing impaired children have become less handicapped than they used to be, and many are better equipped to live in the hearing society. Early diagnosis through the use of sophisticated audiological equipment, such as computer links which can screen very young babies and measure hearing through recording electrical impulses in the brain, increases the possibility that very young children may be provided with amplification during the critical years of language acquisition. Early parental counselling and guidance enables the parents to develop child rearing practices which will not be restrictive and managerial (Schlesinger and Meadow 1972), but which will enable the child



to develop much more positively through increased quality of interaction. Also, a more informal approach to language acquisition for young hearing impaired children is being adopted in pre-school work, moving away from the formal 'this-is-a-cup' approach to one which builds much more on what would be considered natural, even colloquial, language (Lewis and Richards 1988).

Improvements in hearing aids have also enabled the very young child to utilize his residual hearing in the development of his spoken language. As hearing aids have improved in quality, so have they also decreased in size, and some young children can be fitted with tiny post-aural aids instead of having to wear a large 'box' type aid. Also, for children of school age, the invention of the radio aid has been a tremendous step forward, and is considered, in many cases, to be the critical key to the child's placement in ordinary school.

Earlier diagnosis, more emphasis on natural language acquisition and improvements in hearing aids have resulted in more children with severe impairment being placed in ordinary schools. These children, rather than being placed in partially hearing units, are now being placed, individually, in classes of hearing children (Gregory and Bishop 1989). In parallel with these factors is the desire of parents for their children to be integrated. Hegarty, Pocklington with Lucas (1981) p.481 considered parents' attitudes towards integration under three headings, viz., desire for normality, concern for academic progress and experience of, and attitudes towards special schools. For parents, the opportunity for their children to interact with hearing children in a hearing world would seem to be an important priority.

While the improved opportunities mentioned above contribute to earlier language acquisition and better communication skills, it is the context in which the child is viewed which is regarded as vital. In particular, how the child is perceived by his parents and teachers is critical. The optimal view is of a child who is a child first, and hearing impaired second.

"I think one of the major mistakes parents of deaf children are most apt to make is to get so caught up in the deafness that they fail to meet the child's developmental and psychological needs - in short, to forget the child underneath the deafness."

(Luterman 1987 p.32)

Parental responses to their hearing impaired child, and to the hearing impairment, per se, influence the development of the child's self-concept, and, subsequently, his adaptation and attainment within the hearing society. These may be the critical variables by which a child is also viewed by his teacher. It is the teacher who controls the quality of the interaction and the learning environment, and, although the integration of hearing impaired children, and indeed all children with special educational needs, is supported by legislation, the education the child receives still depends on what goes on within the classroom. Therefore, this cannot be a haphazard arrangement, relying solely on the goodwill, experience and expertise of the individual teacher.

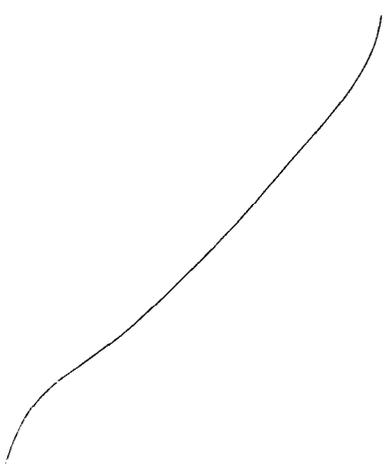
"Integration can only be achieved through careful planning in accordance with a clear educational philosophy. It depends on those with the power to create and implement policy getting their act together. By the very nature of such a process people cannot expect the 1981 Act to do that for them."

(Booth p.19 in Gurney 1985)

The present study sets out to investigate the policy and practice of integrating hearing impaired children in ordinary primary schools. The social climate within which the child finds himself and the individual interactions which take place therein, are seen as crucial, and parents' and teacher's perceptions of the hearing impaired child and the responses which they make to him, are recognised as definitive factors which have the most vital influence on his ability to function within the ordinary classroom. The hearing loss, per se, is not regarded as having the same vital influence. In this study, the significance of parents' and teacher's roles, their attitudes, models of learning and practices are examined through a review of the literature and a series of interviews with parents and teachers.

This study is divided into three parts. Firstly, the survey of the literature explores the implications of integration, the attitudes and responses of parents and teachers, and the attainment and adjustment of hearing impaired children placed in ordinary schools. The second part

seeks to review and evaluate evidence of parents' and teachers' attitudes and their interactions influencing the integration of a small opportunity sample of hearing impaired children, and to relate this evidence to issues raised in the literature. Finally, the third part contains a general discussion of implications for the education of hearing impaired children and suggestions for future research.



PART A

REVIEW OF THE PERTINENT LITERATURE

SECTION ONE

INTEGRATION OF HEARING IMPAIRED CHILDREN

The principle of educating children with special needs in the ordinary school, described as integration in Great Britain, mainstreaming in America, and as a much wider normalisation process in Canada and Scandinavia, has been influenced strongly by the conviction that handicapped children should share the same experiences as others and should have the same rights of access to the curriculum. Commitment to the principle of integration of hearing impaired children has been long standing, and a most positive step to this end was realised by the Handicapped Pupils and Schools Amending Regulations (1962). Under these regulations, a child was no longer termed "partially-deaf" but "partially-hearing", thus emphasising the importance of residual hearing. This was a most important milestone in the education of hearing impaired children, since educators began to realise that audiometric deafness did not equate to functional deafness, and that many other important factors would affect the ability of the child to function in the ordinary school.

"I want to emphasize most strongly that such a viewpoint makes it impossible to use a pure-tone audiogram as an indicator of a child's actual or potential effectiveness in processing spoken language. An audiogram, is, at best, an indication of sensory capability for processing pure tones. It is a measure of end organ function. It is not a measure of the perceptual processing competence involved in the transformation of sensory stimuli into the patterns of coded information which comprise phrases or sentences."  
(Sanders p.41 in Nix 1976)

This issue encapsulates the problem of defining what constitutes an educationally significant hearing loss.

"An allowance must be made for the different criteria used by local authorities when defining hearing impairment in response to a survey questionnaire. The term generally includes a wide range of impairment from profoundly deaf children to mildly hearing impaired. Some authorities will include all those with conductive deafness, while others only those with sensori-neural losses: yet others, only those pupils with hearing aids. The number may also reflect only those hearing impaired pupils in ordinary schools receiving some form of specialist help, and may not, therefore, be fully representative of all pupils with hearing impairment in ordinary schools."  
(Hodgson 1984 p.27)

The extent of the hearing impairment may not be indicative of the child's ability to function effectively in mainstream education (Hodgson, Clunies-Ross and Hegarty 1984 p.151). Since different definitions of what constitutes an educationally significant hearing loss are in operation, it follows that there will be different estimates of incidence (Watson 1979, Tucker 1978). Jacobs and Lynas (1982) indicate the need for more precise definitions of the educational handicap of hearing impairment, citing varying incidence estimates of 0.5 per 1000 population (Derbyshire 1970), to 70.0 per 1000 population (Eagles 1973). They conclude:

"When the interest is primarily medical, estimates tend to be higher than when there is a more closely defined educational interest."

(Jacobs and Lynas op. cit. p.102)

Research evidence suggests that even slight hearing losses (average 32 dB) can have a serious effect on a child's educational progress (Hamilton and Owrid 1974), and this issue is discussed in greater detail in Section 4 of the review of the literature.

Improved health care (eg. lower Rubella incidence) and screening techniques will have had an effect on the decrease of children with hearing impairment, as described by Taylor (1981), who predicted a 50% decrease in the numbers of hearing impaired children attending special schools, units and ordinary schools within ten years. Improved screening of young babies, and, therefore, earlier use of residual hearing, together with technological advances in hearing aids and better earmoulds, will mean that more severely hearing impaired children may be considered suitable for placement in ordinary school.

"It seems likely that there will be a growing trend to integrate more severely hearing-impaired children in ordinary schools. A stringent economic climate, pressure from parents, a concern for early diagnosis and intervention, developments in hearing aid technology, such as radio aids, and changes in educational philosophy reflected in the 1981 Education Act have all increased the possibilities of integration for even the more profoundly impaired children."

(Webster 1986 p.5)

It is therefore highly probable, that, in a teacher's career, she may face an individual child or possibly a small group of hearing

impaired children in her class on more than one occasion. This raises many complex issues eg. What is the level of awareness of the implications of even a mild hearing impairment? How competent and confident is the teacher to develop the full potential of these children? It is hoped that this study may be able to highlight some of the implications of integration for teachers and other professionals. What must be remembered is that a wide and flexible range of educational opportunities must be available. What works for one child does not necessarily work for another, and care must be taken that the needs of individual children are not submerged within the rhetoric of legislation.

"The terms of the Education Act 1981, do not recognize the complexity and subtlety of the needs of the hearing impaired and there is a distinct danger that the well-being of some of them will be prejudiced by the enthusiasm of politicians, the ambitions of parents, the optimism of teachers and the necessity of administrators to meet budget requirements."

(Reeves 1983 p.173)

The principle of positive discrimination is seen as central to the concept of integration by the writer of this study. Dessent (1987) argues that positive discrimination for children with special needs does not imply that they are more highly regarded or valued than their non-special peers, but it implies equal worth and regard. Such equality can only be achieved when exceptional measures are taken on behalf of those with special needs. The message would seem to be that equality does not mean sameness: it means appropriateness. This factor was highlighted both by the Snowdon Report (1976) and the Warnock Report (1978), and has important implications for teachers. The teacher's perceptions of the hearing impaired child and his needs therefore become a central issue: the question must be addressed whether hearing impaired children are perceived as different, and, therefore, requiring different treatment, or do teachers believe that integration implies sameness, and, therefore, children do not require different treatment from that received by their hearing peers.

Lynas (1979) states that integration for hearing impaired children has two aims - assimilation and mutual accommodation. These are social processes, the former implying a process of making similar and of making differences less obvious, and the latter implying a process of

acknowledgement and acceptance of differences with less emphasis on making similar. Acceptance and adaptation would seem to be two key elements. The hearing impaired child would need to adapt to circumstances within the ordinary school, and children and teachers would need to make adjustments to accommodate to the needs of the hearing impaired child. Hodgson (1984) postulates:

"Another important question is how far the ordinary teacher and hearing pupils should (or can) accommodate to the special needs of the hearing impaired pupil, or, conversely, how far the hearing impaired pupil can reasonably be expected to accommodate to the demands of the ordinary classroom."

p.27

This aspect is considered as part of the later personal investigation in which the degree of accommodation which teachers make towards their hearing impaired pupil is appraised. This teacher accommodation should be revealed in such areas as modification of teacher practices and teacher awareness of appropriateness of certain teaching styles. It will be dependent upon the teacher's perceptions of the child and his needs, and the ability of the teacher to accommodate to the child as an individual, ie. the practical application of the teacher's understanding of the term "integration".

Even within the literature specific to hearing impairment, the definition of integration is problematic, lending itself to different interpretations.

"Integration is an umbrella term which means different things to different people and covers a multitude of practices."

(Webster and Ellwood 1985 p.8 )

For Nix (1977) the term would seem to imply normalisation.

"helping the hearing impaired child to live his life in as near normal a manner as possible, and making available to him patterns and conditions of daily living that are as close as possible to the mainstream of society."

p.288

The proponents of the use of sign language in ordinary schools suggest that integration can mean only "mere proximity" without the use of Total Communication (Young in Montgomery 1981 p.61). The oral/manual debate is

not an issue in this present study, but the question does arise, on consideration of Young's viewpoint, as to how much the teacher and other children can be expected to accommodate, ie. by using sign language, to the needs of the hearing impaired child. What is certain is that a degree of accommodation is necessary. It is obvious that proximity alone cannot achieve optimum educational and social integration, ie. functional integration as defined in the Warnock Report (1978),

"Joint participation in educational activities ..... where children with special needs join, full or part-time, the regular classes of the school and make a full contribution to the activity of the school."

p.101

For some hearing impaired children functional integration may not be possible and any decision regarding placement must be specific to the child, his teacher and the educational context.

"We must treat each hearing impaired student as a unique individual in the pursuit of his or her educational needs. Each student must be considered individually, and placement decisions must be based on the unique needs of the child at a given time. In some cases, a profound hearing impaired student can be totally integrated with minimal support. In other examples, a hard of hearing student with a moderate loss may need to remain in a self-contained classroom with a great deal of support."

(Gonzales 1980 p.20 )

It is unhelpful to assume that placement can be decided solely by level of hearing loss, since so many other variables must also be considered. Two factors were found to be significant in her research by Rister (1975). These are that severity of hearing impairment is not the sole indicator of ability to succeed in the regular classroom, and also that severity of hearing impairment does not determine the most effective teaching method.

In a most interesting discussion of the rationale which underpins integration, Bricker, (in Guralnick 1978) considers complementary arguments for integration, those of socio-ethical, legislative, and psychological-educational issues. The socio-ethical arguments are based on the possibility of altering society's attitudes, the harmful effects of segregation on the handicapped child, and the efficient and effective allocation of resources. Undoubtedly, the

powerful effect of peer group interaction has the potential for influencing attitudes, but only through direct observation and contact. Moss (1987) found, that in the Hearing Impaired Unit for which she was responsible, a positive attitudinal change was effected when the policy of locational integration became one of functional integration. The processes of assimilation and mutual accommodation take time and can only be achieved through direct contact. Of equal importance to the peer group's view of the child is the child's view of himself, which would be enhanced by the removal of restrictive and possibly negative labels created by segregation. The issue of positive discrimination is raised through the efficient and effective allocation of resources. Care must be taken that, in an attempt to meet the needs of one group of children, the rights and needs of others are not denied.

The legislative procedures of integration, outlined in PL 94 - 142 in America, and the Education Act 1981 in this country, are concerned with the rights of children and parents: the rights of children for an education appropriate to their needs, and the rights of parents to be involved in decision making regarding education. However, there can be a tremendous gap between actual practice and the requirements of the law. As Bricker (op. cit.) states;

"Legal mandates may provide the groundwork, but continued efforts by parents and educators are needed to ensure the spirit as well as the letter of the law is followed."

p.16

The psychological-educational arguments are based on the assumption that integration will create a more demanding and stimulating environment for the child than that which would have been provided by a segregated setting. Exposure to language, and the opportunity to learn through imitation give greater opportunities for appropriate speech and language patterns to develop. This act of surrounding the hearing impaired child with what is described as "normal" language is seen by many parents and teachers to be the most positive attribute of integration.

The purpose of the integration of hearing impaired children would seem to be twofold:

1. The promotion of natural contact and meaningful communication among hearing impaired children and their normal hearing peer

group.

2. The raising of expectation levels of educational achievement for, and by, hearing impaired children.

Craig, Salem and Craig (1976) report the objectives of improvement in communication, academic and social skills, with the most frequently reported objectives being the development of self-sufficiency and increasing interactions between hearing impaired and hearing pupils.

Research into the placement of hearing impaired children indicates variables which are believed to facilitate functional integration. Pflaster (1980) conducted a factor analysis of responses of one hundred and eighty-two young people, age range 6 years 6 months - 19 years 8 months, with hearing impairments ranging from 30 dB - 110 dB (mean loss 71 dB). He intended to identify the variables related to academic performance to determine which were important. The dependent variable was reading comprehension ability. Major factors important to successful academic achievement of these children were found to be:

1. Highly developed oral skills.
2. High levels of motivation, positive attitude towards learning, determination, independence, social maturity and acceptance of criticism and frustration.
3. High degree of ability to use spoken and written language, including paraphrasing, using idiomatic expressions and the use of varying sentence structure.
4. Artistic and synthetic abilities.
5. Involved, but realistic family members and professional individuals.

pp.71-84

The following academic and social qualities are identified by Griffing (1970) and Northcott (1973).

1. The pupil is able to use any residual hearing and can cope with full-time hearing aid usage.
2. The pupil's language and speech skills are not too far significantly below those of the class groups.
3. The pupil's age is within two years of the class average, otherwise he may find difficulty in fitting in with classmates.
4. The social/emotional maturity is equal/or nearly equal to that of hearing classmates.
5. The pupil is sufficiently self-confident, independent and determined to function in the normal class.
6. The ability and concentration of the hearing impaired pupil are within the range of the proposed class.

Other lists of important parameters are identified by Gearhart and Weishahn (in Gonzales 1980 pp.17 - 20), Nix (1976 p.258), and by Nolan and Tucker (1981 pp.202 - 208).

However, it is not just the hearing impaired child who must be considered. Ross (in Nix 1976) emphasises this point:

"It is not only the child who must be assessed but also the school and the classroom into which he is to be placed."  
p.234

Northcott (1970) identifies the following criteria to determine the appropriateness of nursery school provision.

1. An opportunity for social interaction with normally hearing peers.
  2. Exposure to peer group behaviour models.
  3. Exposure to peer group language.
  4. Opportunity to follow routine and structure.
  5. Opportunity to relate to adults other than parents.
- pp.367-380

The role of the class teacher is seen as crucial, and this premise forms the basis of Section 3 of the review of the literature, but the total environment offered by the school must be considered (Lynas 1980 pp.51 - 52). However, the issue has already been raised that what might be appropriate placement for one child might not be suitable for another.

"What is an optimal educational environment for one student may be failure inducing for another, due not to the category of placement it represents, but to the interaction of the child and the physical and interpersonal milieu which it offers."

(Pasanella et. al. 1981 p.114)

What, then, are the advantages of the placement of the hearing impaired child in the ordinary school? Gearhart and Weishahn (1976 p.39) outline the advantages, as they see them, for the hearing impaired pupil. They highlight such criteria as:

1. Exposure to age-appropriate speech and language.
2. Opportunity to raise one's educational achievement levels.
3. Opportunity to perceive oneself more like, than not like, hearing peers through developing a feeling of belonging in social relationships.
4. Preparation to function in a hearing world.

Nix (1976) p.119 exemplifies the following benefits:

1. Provision of normal age-appropriate speech, language and social models.
2. Reduction in the amount of gesture language initiated by the child.
3. Motivation and reinforcement for the development of good speech and speech perception.
4. Reduction of the excessive dependence which may have developed between the mother and the child.
5. Addition of a verbal mediating link between the action of play and cognitive development.
6. Faster academic pacing is available and achievement level expectations are raised.
7. Greater variety of high school courses to meet differing needs and interests than found in most high schools for the hearing impaired.
8. Availability of a broad range of co-curricula interaction can increase self-esteem and a feeling of belonging to a greater society than that available in the restricted environment.

The benefits which have been outlined are highly commendable but, with a lack of awareness of individual needs, or an inability or unwillingness to adapt practice, placement in an ordinary school can be inappropriate.

"Hearing impaired children, placed in regular classes, are in an educationally restrictive environment if their special needs are not being met."

(Reich et al. 1977 p.534)

Integration, in its true sense, does not just happen. A state of readiness must exist, together with attitudes of acceptance and respect, and personal commitment to the modification of practices to meet, with flexibility, the changing needs of the hearing impaired child. The primary concern should be the development of the individual child to his potential.

It appears that the concept of integration may be perceived as a concept of growth, growth for all concerned but particularly for the two main participants, the child and the teacher. What the child brings to the classroom will have been shaped by his past experiences and significantly by the regard in which he is held by his parents and his family: what the teacher brings will have been shaped by attitudes, awareness of the implications of hearing impairment, experience, knowledge, and confidence in both her own ability and in the availability of support services. The contributions to any integration

programme which parents and teacher make as the reference set of the child will have great effect on the full development of his academic and social potential. Therefore, the literature which concerns these very important influences will be reviewed in the following two sections of this study.

SECTION TWO

PARENTS OF HEARING IMPAIRED CHILDREN

Parents are key figures in a child's growth and development: his acceptance of himself, of his hearing loss, and his ultimate social adjustment depend on parental attitudes, perceptions of the child and their degrees of acceptance of the hearing loss. In anticipating the birth of a child, parents generate dreams as to what that child is going to be for them. These dreams hold great promise for the parents' future, for their future as parents of an unimpaired child. They will already have internalised certain attitudes and beliefs towards disability (Miller and Gwynne 1972). These attitudes will be the products of many forces as parents have been subjected to the processes of social learning: attitudes will be generalised, but they will also be specific eg. they may believe that 'deaf' means 'stone deaf' and 'stone deaf' means 'cannot talk'. However, attitudes are not constant, and, although there is evidence (Mannoni 1973) that attitudes and values established before the birth of a handicapped child do influence parental perceptions and treatment of that child, subsequent interaction with the child, particularly over the developmental period, alters attitudes (Walters and Stinnett 1971). The parents and child are then involved in a learning process in which expectations are modified and adjustments are made. The significance of parental perceptions of the child is thought to be crucial in the development of his positive self-concept, and it is hoped, in the present study, to investigate parental responses to diagnosis and to consider the parents' abilities to value their child as he is, and to focus on the handicap as a secondary issue.

The initial diagnosis of hearing impairment often marks the point where the valued dream of an unimpaired child is shattered.

"It is a dream that must be grieved for. Unfortunately, the loss of the dream is such a personal and illusive loss that few people understand the nature of the loss. Indeed the parents may not understand that it is a dream that has been lost, and therefore they are frequently confused by the grief process that follows."

(Moses p.86 in Powell et al. 1985)

Grieving is seen as a necessary process, since it facilitates growth and a reappraisal of an individual's social, emotional and philosophical environment, which can lead to positive values and attitudes. Models of the grief process, which is essentially very complex, may appear to be

rather simplistic as Luterman (1987) suggests:-

"Almost all models of the grief process imply an orderliness that is not there; the stages of grief are not mutually exclusive and there are no clear demarcations between one stage and another."

p.41

Although the different emotional states associated with grieving do not necessarily occur in a set pattern, they do have a very specific function in that they allow the parent to distance and separate himself from the shattered dream. Moses (in Powell et al. 1985) illustrates the affective states of denial, guilt, depression, anger and anxiety. On the basis of a small-scale study, Drotar et al. (1975) put forward five stages of parental response to diagnosis. These are shock, denial, sadness, anxiety, anger and adaptation. Grant (1987) describes a "common thread" which appears in the research literature which she reviewed. Parents of hearing impaired children appear to experience shock and devastation, bitterness and anxiety, panic and confusion, feelings of being overwhelmed, and sorrow and grief. Burton (1975) and Rutter et al. (1970) state that the complex parental feelings are reciprocated by behaviours such as over-protection, rejection, depression, aggression, disbelief, withdrawal and adaptation.

Fortunately, with hearing impaired children, rejection would seem to be rare. Poznanski (1973) claimed that, to the contrary, the attitude of over-protection is common: his statement being supported by the evidence of Boone and Hartman (1972) who found that over 60% of their sample of parents displayed this response towards their hearing-impaired children. To Poznanski, over-protection means that the child receives more attention from his parents than his impairment requires, and much more than any siblings receive. This attitude of over-protection concentrates on the handicap and not on the child. Very often, over-protective parents restrict social interaction, limit independence, and the child suffers from experiential deprivation at a most vital period. This issue lends itself to further discussion later in this section.

Perfectionism or denial is shown by parents who may love their child, but who cannot accept the reality of the handicap (Lowenfield 1971). Parents may reject the diagnosis, the permanence of the diagnosis, or the impact of the diagnosis ie. they may consider that

there is little significance in their child having a hearing impairment, since they are not aware of the implications of the loss. There may be a strong urge to expect a full range of normal behaviour from the child, and the parent may look for indicators that all is well, that the diagnosis was wrong, "Look, did you see him turn his head, he heard that."

This state of denial is probably the first affective state in the grieving process. It is a very necessary state, giving parents the time to constructively incorporate what has happened, to accumulate information and to gain inner strength. It is at this point that the professional, usually the peripatetic teacher of the hearing impaired, has to reconcile the concept of early intervention with the parents' need for denial.

"If the denial process were assaulted before the parent had the inner strength and the outer mechanism to understand the impact of what had occurred, the parent would collapse emotionally."

(Moses p.88 in Powell et al. 1985)

Moses (ibid) comments that since the state of denial gives the parent the opportunity to find the inner strength and the external mechanisms, then, on the attainment of these strengths, the state of denial will cease.

Perhaps one of the most frustrating states of grieving for all concerned is the state of guilt. The parent may believe that he/she actually caused the impairment eg. through taking drugs during pregnancy, or there may be the belief that the impairment is just retribution for some past, either real, or imagined, wrong-doing. Associated with this belief may be the thought that "I am a bad person, therefore something bad has happened to me." In this state, the parent needs support to evaluate his/her responsibility for life events.

The state of depression, which could be described as anger turned inward, often leads to the parent feeling incompetent and their self-value becomes threatened. He/she is unable to make the child "normal" and therefore feels a failure. Professional support needs to be very sensitive, allowing the parent to start from these feelings of infinite inadequacy until the ability to re-evaluate competences is established. Frustration at the diagnosis of impairment often leads to anger and aggression. Since it would appear very wrong in society to

show anger towards the impaired child, the parent often displaces anger on to others: spouses, other children and professionals. Parents often become very anxious: the responsibility of an impaired child can weigh very heavily. On the one hand, the parent has the right to have an independent life, on the other hand, there is the responsibility of a child who may need a great deal of help. Where the hearing impaired child has siblings, there can be many problems as the parent deals simultaneously with both normal and handicapped children.

"A more difficult thing is balancing the roles of the 'professional parent' to the handicapped child and 'ordinary parent' to the other children in the family at the same time. Many parents find this continual switching very stressful indeed."

(Newson and Hipgrave 1982 p.132)

Parents' child-rearing practices towards the normally hearing children in the family can be dramatically altered with the birth of a hearing impaired child.

"The entire spectrum, from neglect to over-indulgence, can occur while the parents are making adjustments to the trauma of bringing a handicapped child into the family and even afterwards. Parents may spend an inordinate amount of time with the handicapped child, increasing the chance of serious sibling rivalry or neglect of the other children."

(Grant 1987 p.66)

The effect of the hearing impaired child on his siblings will depend, very largely, on the parents' ability to manage their feelings and to adapt their child rearing practices. With the diagnosis of hearing impairment, the balance of the family is altered, and this alteration must be faced. All change results in some degree of stress, and the family has to adapt to a new pattern.

"Growth in all healthy families can be seen as a process of discarding old paradigms and replacing them with more useful ones. Unhealthy families try to maintain the old paradigm in the face of a new reality."

(Luterman 1987 p.7)

Throughout the affective states of the grieving process, the parents require tremendous sensitive and appropriate support to come to the state of acceptance where the child is viewed for what he/she actually is. The support will need to convey an attitude of acceptance that such

states of grief are positive and necessary. However, it must be realised that the grieving process is not a one-off occurrence. Any change can initiate a crisis reaction by the parents. When a child comes to a new milestone in its life, eg. school entry, the parental grief process may begin again. Moses (in Powell et al. 1985) gives the following developmental points when grieving may re-occur:

- "1. When the child reaches 'regular' school age.
2. When the child becomes pubescent.
3. When the child reaches the age of high school graduation.
4. When the child comes to an age when the expectation is that he or she would live totally independently.
5. When the parents come to retirement age."

pp.99 - 100

As well as the internal stresses which are involved in the grieving process, the parents and the child are also exposed to external stresses. The reactions of other people eg. grandparents, neighbours etc. will depend very largely on the attitudes exhibited by the parents, but also to a great extent on their own perceptions of the term 'hearing loss'. Unfortunately, there is a tendency to respond to children with different degrees of hearing loss as though they were 'deaf'. This problem originates from the very human characteristic of polarizing concepts and of stereotyping. The child's behaviour can then be the result of a self-fulfilling prophecy which is embodied in the label 'deaf'. One of the most vital expectations of a hearing impaired child ie. the use of residual hearing, is then lost.

Most importantly during the grieving processes, parents will need support, not just from professionals, but from family and friends. Too often, these significant others respond with rejection, fear, apathy, or misunderstanding. Instead of facilitating grief, they may actively discourage it.

"Understanding and accepting the value of the emotional states associated with grieving is crucial for professionals and others, if parents are to grieve successfully."

(Moses ibid p.87)

As has been mentioned earlier in this chapter, the state of acceptance is reached when the parents can value their child as he is, focusing on him firstly, and then on his impairment. It would seem that similar

parental expectations to those held for normally hearing children in areas not related to language are appropriate. Where realistic expectations are set, and the child is given opportunities to develop and use his abilities, then there will be a much better chance of positive self-concept development. The child should be seen as limited in hearing, but able to play a significant part in the hearing world.

Northcott (1973) found that once a diagnosis of hearing impairment is reported, very often the parents initially react by ceasing to talk to the child, thus preventing exposure to auditory experiences. As parents become aware of the limitations imposed by a hearing loss and as they come into contact with other hearing impaired children, they may tend to underestimate their own child's potential. Of course, the reverse may be true. It is therefore vital that parents receive counselling and guidance to help them adjust to their feelings and to develop realistic goals and expectations for their child. Unless this is done effectively, psychological and social adjustment problems may be created. eg. parents who perceive that their child cannot communicate easily at the age of seven, will not permit the child to ride a bicycle or to go to school alone. Lewis and Richards (1988), in advocating a natural aural approach, stress the necessity for regular consistent parent guidance.

"Such work with the child and family involves fostering attitudes and expectations and convinces parents of the ultimate potential of their hearing impaired child to achieve communicative competence."

p.36

Reduced parental expectations will result in a very restrictive interactional style, thus distorting the child's linguistic experiences at a critical stage.

Jaehnig (1975) suggested that there are three particular areas in which parents would require guidance. These are in emotional considerations, problems of social isolation and practical problems. The counselling which is given to parents is mostly carried out by peripatetic teachers of the hearing impaired, and many of them may not have had any specific training in what is effectively adult education and counselling. Parent guidance is a skill which has to be learned, and the successful teacher in this field is one who has:

"developed an active social awareness: skills in counselling: knowledge of normal pre-school aged child development and play, and, finally, an aptitude for adult education."

(Fraser 1977 p.208)

Grant (1987) stressed the need for professionals engaged in parental guidance programmes to have the following objectives:

- "1. Listen to parents.
2. Deal with the parent(s)' feelings of shock, anger, denial, retreat, and grief by providing emotional support.
3. Determine the extent of the parents' background knowledge.
4. Provide information to the parents in a way that they can understand.
5. Help the parents become thoroughly familiar with the facts and implications of their child's problems as they become known.
6. Help the parents acquire confidence in their ability to cope effectively with the day-to-day problems of a handicapped child.
7. Assist the parents to achieve consistently firm but affectionate handling of the child in a variety of situations.
8. Help the parents establish a positive and warm affective interactive bonding with their infant by strengthening the positive aspects of parent-child interaction.
9. Help the parents provide a language environment which will promote language acquisition, taking into account the child's impaired sensitivity.
10. Help the parents learn to be sensitive to natural and informal situations in everyday life which make language more meaningful to the child, and to exploit these situations.
11. Teach parents to be alert to ideal opportunities not only for the development of communication skills but also the total integrated development of the child.
12. Provide parents with information about available resources."

p.80 - 81

A study carried out by Enright and O'Connor (1982) examined some of the priorities involved in parent guidance services for the families of pre-school children with hearing impairment. The peripatetic teachers who took part in this study perceived that reduction in stress and family stability were needs which required attention before any progress could be made on language development and education. On the other hand, parents did not agree with this view, and saw the peripatetic teacher in

a teaching role rather than that of a counsellor.

There are disturbing findings in studies such as that of Connor (1971), which indicated that the majority of parents of sixty profoundly hearing impaired children, despite an average of fifteen previous visits from advisory teachers, were doing only a fraction of the activities they had been advised to do to help their children audilogically, educationally and socially. These findings may emphasize the differing viewpoints and priorities of parents and teachers, but may also reflect on the practicality of the suggestions and/or the communication skills of the teachers. Markides (1972), in an examination of parent guidance programmes given to families of pre-school hearing impaired children, described the families as either stable or unstable. He found that stable families were able to face reality and learn from guidance. The chief characteristic of unstable families was an inability to cope with feelings of guilt: this led to either over-protection or rejection. Markides claimed that his findings show the great need for counselling with families of hearing impaired children before educational guidance can begin.

There have been many criticisms made by parents of professional practices at the time of diagnosis. Many parents suspected that their child had a hearing loss before diagnosis (Gregory 1976) and, for these parents, there seemed to be a problem in convincing the professionals of the importance of early diagnosis. In her study, Gregory states that for one in four children there was a delay of six months before confirmation, and for 9% of the group, the period was in excess of one year. Freeman, Malkin and Hastings (1975), whose sample was one hundred and twenty prelingually deaf children, found that most parents (75%) suspected that their child had a hearing impairment before professional diagnosis, and their findings confirmed those of Fellendorf and Harrow (1970) who presented a figure of 70% of parents suspecting that their child was hearing impaired. These writers suggest that the diagnosis did not come as a shock to parents, which is contrary to the statement made by Meadow (1968) who described shock as a common reaction of parents.

"a tragic crisis with long-term implications for family life."

p.299

The effect upon 50% of parents of the diagnosis was said to be

"mild or neutral by retrospective judgement."  
p.395

in the Freeman, Malkin and Hastings study. Parents who knew the reason for their child's impairment seemed to be more capable of coping with the guilt feelings which accompany the diagnosis. (Meadow op.cit.) However, there is great difficulty in evaluating information from parents about their initial reactions to the diagnosis of hearing loss, since retrospective impressions and recall may be faulty.

In Fellendorf's study (1970) the delay between suspicion and professional diagnosis was under one year in 70%, and eighteen months or more in 14% of his sample. Freeman, Malkin and Hastings (1975) stated that the more severe the hearing loss, the earlier the parental suspicion and the shorter the delay in diagnosis. In this study, where there were eight families with more than one hearing impaired child, the delay in confirmation was still high (11.0 months). Some parents reported that their suspicions were not taken seriously because of the inference of 'over-anxiety' due to their first child's diagnosis. There were also some parents who did not want to concede that they could have another hearing impaired child.

The paradox that the educational, medical and social services which are supposedly support services for the hearing impaired child and his family, may in fact prove to be unsupportive, is pointed out by a parent of a hearing impaired child (Nolan and Tucker 1981 p.78). Criticism is levelled at doctors who give casual and hasty diagnoses, educational psychologists and local authority personnel who do not give adequate information or time for consultation, and teachers, who give parents unrealistic tasks which make them feel inadequate when the tasks cannot be completed satisfactorily. A research project carried out for the Warnock Committee by Chazan, Laing, Shackleton-Bailey and Jones (1980), stated that many parents of young handicapped children were dissatisfied with the insensitive way in which their child's disability had been revealed to them. They felt that they had been given inadequate and confusing information about the nature of the disability, and insufficient guidance on how to cope with the child at home. This issue is not specific to parents of handicapped children. Many teachers may feel that they also receive inadequate and confusing information about the children for whom they are responsible. It may be a pious hope that

the approach to a child with special needs is an interdisciplinary one, with all members of the team being equal partners. This study will seek to investigate whether parents and teachers do see themselves as being equal, and whether information from other personnel is freely and sensitively available.

However, Gregory (1976) found that 65% of mothers of hearing impaired children were satisfied with the way in which they were told of the diagnosis. The fact that many of these mothers were already suspicious of the hearing loss may well have allowed them to be more satisfied with their treatment at the time of diagnosis. They were perhaps also unaware of the long-term implications of hearing impairment, since a young hearing impaired child has so many visible similarities to a young hearing child.

"Among these similarities are vocal utterances similar to the sounds of young hearing children up to the age of eighteen months, early play patterns that closely duplicate those of hearing children, and normal achievement of certain growth milestones such as creeping, walking and running."

(Mindel and Vernon 1971 p.20)

Similar factors seem to be important in the development of hearing impaired children and normally hearing children (Quigley and Kretschmer 1982). They state:

"Affective development requires an accepting and affectionate atmosphere, cognitive development requires stimulating and relevant learning experiences, and language and communication development require a fluent and intelligible means of communication between child and parents and others in the early years of the child's life."

p.36

The beneficial effects of good child-rearing practices and particularly the value of strong child-parent interaction seem to be crucial (Sisco and Anderson 1980). Because the hearing impaired child must depend more on communication of a non-verbal nature, he will remain more dependent on his mother than a normal hearing child. This is really a forced and protracted dependence because of the child's inability to develop conventional communication. At a very young age, the natural interaction between mother and baby of turn-taking, when first the mother speaks and then the baby responds, is interrupted, and, in fact, in some cases may

be absent altogether (Gregory and Mogford 1979). The normal communication patterns of mother and child are altered, and the extent to which the mother modifies her behaviour might be affected by her perceptions of her child's ability or inability in different areas. Lewis and Richards (1988) indicate that where the adult's intentions are different ie. where talk becomes an end in itself, linguistic experiences may be restricted rather than enriched, and parental guidance must therefore be specific.

"Parents need realistic guidance as to both time-scale and progress. In particular, they need to be informed as to what constitutes progress in the pre-verbal and language stages and they should be encouraged to look for evidence both in terms of the child's emergent understanding and use of hearing. As such, they will begin to recognise that understanding is not an all or nothing phenomenon - that meanings are conveyed, not words: that over-simplification actually makes meaning more difficult to extract at times."  
(Lewis and Richards 1988 p.37)

Nolan, Galloway and Hostler (1987) in presenting their preliminary findings of their longitudinal, large scale study of the language and interaction style of mothers of hearing impaired children, state that the mothers were sensitive to their child's communicative level, matching their language appropriately to the child's needs. Mohay (1986) undertook a study in which she investigated the ways in which two mothers modified their language to their sets of twins, in each of which, one child was hearing and the other hearing impaired. When talking to the hearing impaired child, both mothers used shorter utterances and more attention getters. They failed to respond appropriately to the language of the hearing child and made little adjustment in the complexity of their language over a period of two years. Previous studies have tended to look at the hearing impaired child in a one-to-one situation with his mother, but in this very small scale piece of research it is interesting to note that the hearing child may have been disadvantaged by the presence of the hearing impaired child.

Where researchers into the language development of children have placed more emphasis on the contribution which is made by the child in parent-child conversation, Hughes (1983) and Chadderton, Tucker and Hostler (1985) claimed that mothers of hearing impaired children are

very responsive, and that they use strategies and adjustments in conversation similar to those used by mothers of normally hearing children at comparable levels of linguistic development. There is the possibility that where a child shows lack of obvious comprehension and speech, parents may take over far more control of the interactions with their children than they would normally have done (Wood 1982). The understanding and patience which are required with a young child who is developing the pre-verbal foundations of language is not always evident (Gregory and Mogford 1981).

Many writers have documented the existence of altered parent-child relationships. Stinson (1978) compared the attitudes of thirty-one mothers of hearing impaired boys to those of thirty-three mothers of normally hearing boys. The mothers of the hearing impaired boys relaxed the demands they made upon their sons. They expected later development in speech and language, and acquisition of skills relating to social conduct. Schlesinger and Meadow (1972) interviewed parents of pre-school hearing impaired children. Mothers of children with poor oral skills were found to be more didactic and intrusive, but less flexible, permissive and creative, than mothers of children with good oral skills. They were less encouraging to their children and expressed more frustrations about child-rearing in general. Wedell and Lumley (1980) found that mothers of hearing impaired children tended to be controlling and directive. The parent-child interactions of twenty mothers of hearing impaired children were compared with those of twenty mothers of hearing children by Goss (1970). He grouped verbal exchanges into categories of socio-emotional content. The mothers of hearing impaired children were less likely to use verbal praise than the other mothers and were more likely to show verbal antagonism. Goss hypothesized that the altered mother-child interactions were due to the fact that communication with the hearing impaired children was difficult and frustrating. This frustration which arises from difficulties in communication often manifests itself in temper tantrums (Gregory 1976, Reed 1984) and resulting problems of discipline.

Fundudis, Kolvin and Garside (1979) compared a group of fifty-nine profoundly deaf and partially hearing children with a matched control group. In the case of 71% of the profoundly deaf group, the mother proved to be the one to administer discipline, compared with 68% of the partially hearing group. However, the mothers of both these

groups were found to be more strict and supervisory than the mothers of the control group, of whom 35% were the ones to administer discipline. The greater degree of discipline imposed by mothers of hearing impaired children may reflect a greater concern about the child's safety, or the fact that difficulties in communication may bring about much quicker discipline than with hearing children, to whom explanations about the undesirable behaviour can be given. The authors concluded that the shouldering of responsibility of discipline by the mothers of hearing impaired children could reflect less interaction by fathers with their children and some degree of infantilisation.

Parents would seem to have fewer expectations of their hearing impaired children in social functioning and these children are not given as much independence as normal hearing children (Freeman, Malkin and Hastings 1975, Fundudis, Kolvin and Garside 1979). Certain hearing impaired children could therefore be socially handicapped by their parents' attitudes and the over-protectiveness which many parents show towards their children may probably contribute to their retarded social development. Meadow (1975) suggests that parents' attitudes and child-rearing practices may make the most contribution to the slow development of their child's social maturity. Chess, Korn and Fernandez (1971) reported a significant discrepancy between children's actual capabilities and their performance on self-help tasks. Mothers of one hundred and seventy children were asked to rate their child's ability on tasks such as dressing. The actual performances of the children were significantly better than the parental forecasts. In her study of one hundred and twenty-two families, Gregory (1976) found that more than half of the mothers reported that they made concessions to their hearing impaired children which were not made to siblings. In this study, Gregory refers to the role of the mother in her child's play where the mother felt she had to participate more. There was some restriction in social play because of the danger element, and 28% of the children had an 'indulgent' bedtime ie. the parent remains with the child or the child falls asleep downstairs among the family. These are indeed very real problems for parents of hearing impaired children.

The tensions to which hearing impaired children and their families are subjected are numerous. These are related to the general stress experienced by families of handicapped children and to the specific stress which accompanies the child's reduced ability to

communicate (Meadow 1968). As a normal hearing child develops the ability to communicate, his parents can transmit their expectations to him using conventional speech. However, with a hearing impaired child, there is often an ambiguity in communication which results in frustration. The child becomes confused and restricts his activities to those he knows are safe and predictably acceptable.

Parents who learn to cope and adapt to handicap seem to have the ability to 'normalize' their child (Hewett 1970), and, although many parents appreciate that the most they can expect from ordinary school placement for their child is a limited normality, they still wish for that placement (Hegarty, Pocklington with Lucas 1981). In their research which involved forty-three sets of parents, many of whom had experience of segregated special school placement, parents expressed the value of personal development and maturity with increasing independence, which they felt children experienced in ordinary school placements. They also expressed the benefits to other non-handicapped children who would be able to develop more realistic attitudes to handicap. There was also a high degree of satisfaction with the academic progress which their children were making in school, and, although there was strong support for the principle of integration, the criticism which was expressed showed "a reflective and balanced perspective" p. 481.

The parental criticism was mainly directed towards the nature and the extent of the contact which parents could make with their child's school, despite the great emphasis placed by many writers of the importance of close involvement of parents in their hearing impaired child's education (Webster and Ellwood 1985, Garrett and Stovall 1972). There is obviously still a great discrepancy between what is written and what actually takes place.

"The involvement of parents in the assessment processes for special education, and in the actual education of their children in special school and classes, is an area in which benevolent rhetoric supersedes reality."  
(Tomlinson 1982 p.106.)

This author goes on to argue that, although under section 16 of the 1981 Education Act, the onus is placed on parents to secure the education of their child according to age, ability, aptitude and any special needs he may have, there are very few parents who would either have the expertise or the will to do this if their aspirations for their child were

different from those of the professionals.

The father of a hearing impaired child suggests that the three most frequent sources of complaint made by parents are, the giving of inadequate information, unrealistic advice, and ignoring what parents themselves have to say (Tumin 1978). Hegarty, Pocklington with Lucas (1981) emphasized criteria which they felt had to be fulfilled for the maximum benefit of integrated children.

1. Parents must feel at ease within the school and in the company of the staff.
2. They must be encouraged and led to believe that they make an important contribution to their child's education.
3. Parents must be given specific tasks to do, which make sense to them and appear relevant to their child's needs.

Anderson (1973) suggests that the educational placement for a child should be discussed with the parents at an early date, since it is likely that the greater their anxieties about educational possibilities, the less able they may be to accept their child's handicap. The absolute necessity for parental support and guidance at the time of diagnosis has been closely argued in the review of the literature. There is an equal necessity for that guidance and support to continue, so that parents can participate fully and actively in their child's education.

The implications for this present study are wide-ranging, but it seems important to focus on whether teachers are aware of the stresses under which many parents find themselves as their child reaches critical points in his educational life. It would seem remarkably easy to dismiss parents as being over-protective, when they may be working, in fact, yet again, through the grieving process. Often, it may be more simple to adopt a prescriptive approach, yet, if we believe that the well-adjusted parent will promote a well-adjusted child, then we need to be concerned with the fact that parents of hearing-impaired children form no more of homogeneous group after diagnosis than they did before. As each child's needs are individual, so are those of his parents.

SECTION THREE

TEACHERS OF HEARING IMPAIRED CHILDREN

Sections 2 and 3 of the review of the pertinent literature focus on issues which are relevant to parents and teachers of hearing impaired children, since it is thought that the 'significant others' in a child's life are going to have a profound influence on his social and academic development. In the pre-school years, the parents will be the most influential persons, but, with school entry, the reference set increases to include a 'significant other' - the class teacher. The nature of the classroom experiences and the teacher's interaction with the child are vital in many areas, but possibly particularly so in the the areas of language, literacy, and social adaptation. In a very limited manner, this study will attempt to investigate the classroom experiences of the five subjects and the perceptions of the class teachers with whom the children interact.

The quality and nature of classroom interaction are seen as being strongly affected by teacher expectations (Brophy and Good 1974, Burns 1982). Expectations are not of, and in themselves bad, provided that the teacher is able to modify these expectations as and when additional information is received, and as the teacher gains more experience. It is therefore vital that the teacher develops a flexible attitude towards the expectations she holds for the child. Where expectations are set too high and are not modified, undue pressure may be placed on the child to achieve beyond his capabilities, resulting in frustration and a poor self-image. However, Ross, Brackett and Maxon (1982) claim that ordinary class teachers may affect more positive changes in academic performance by expecting the hearing impaired child to achieve academically within the same range as his normal hearing peer group. Pressure on the child, parents and teacher to succeed can produce results.

Expectations which are too low, where only minimal educational achievement is expected, have an inherent danger in that the very purpose of integration may be defeated by the attitude of oversolicitousness or even pity. The teacher, in a similar way to the parent, may subconsciously fall into a pattern of interaction with the hearing impaired child where less is demanded from the child because of communication problems. Once this pattern is established, neither the teacher nor the child may appreciate that a different and 'reduced' set of expectations is in operation.

"Set unreasonably low, the dynamics of a self-fulfilling prophecy practically guarantee that the child's subsequent achievement will be lower than it could be."

(Ross, Brackett and Maxon, *ibid* p.213.)

The influence of a reduced set of expectations is obvious: the hearing impaired child may play the role of the child who fails, the teacher may believe that she cannot communicate with the child, and, therefore, does not try.

In some cases, expectations might be better labelled 'biases'. Teachers, like parents, like all human beings, hold stereotypes, and the hearing impaired child may be categorised on the basis of the teacher's pre-conceived attitudes or experiences. It is possible that a teacher may believe that the terms 'hearing impaired' and 'deaf' are synonymous, and, indeed, many teachers use the terms as though they were interchangeable. Ross and Giolas (1978) stress that it is important that a distinction is made between the two, and that it is understood that the hearing impaired child has developed, or is developing, communication skills through the auditory channel, and will require different educational treatment to the deaf child. They emphasize the error which is often made by teachers when a hearing impaired child is treated as a high achieving deaf child, rather than a low (usually), achieving normal hearing child.

"Many of the educational aberrations he is exposed to, follow from this erroneous, limiting and basically pessimistic conception. Educationally because he is considered more like than unlike a deaf child, the visual channel is primarily stressed in language and communication development, to the detriment of the overwhelmingly more powerful (for language development and communication) auditory channel."

p.3.

It would appear that the emphasis on the visual channel is not a common phenomenon in ordinary schools at the present moment, but there are those who wish to promote signing within such schools, and it is implicit in their argument that teachers and hearing pupils should accommodate to the needs of the hearing impaired pupils by signing.

"The one most important issue must be communication. Because the sense of hearing is non-functional in deaf children, this communication must take place through other

senses, primarily vision. Communication must be made visible to the deaf child. It is very clear that the most effective way to make communication visible is through the use of Total Communication."

(King-Jordan in Montgomery 1981 p.39 )

It has been suggested by Fisher (1971) that the hearing impaired child should be treated as a child with a learning problem. Gearhart and Weishahn (1976) emphasise the need to focus on the needs of the individual as a child rather than as a hearing impaired child, stating that:

"The handicapped student should be treated as a student who is able, who is an individual, and who, incidentally, has impaired hearing."

p.55.

Gulliford (1971 p.169) stressed the necessity for the teacher to view the disability as an educational and psychological problem, and not, as is often the case, a medical or a physical one. If the disability is viewed as a medical entity, the teacher is likely to react with the permissiveness with which society views illness, (Wolinsky 1970) displaying a reduced set of expectations to the child.

"Disability is not the attribute of an individual but the outcome of an oppressive relationship between people with physical impairments and the rest of society."

(Finklestein 1980 p.47.)

Impairments become indicators of some functional limitation, shaping interactional processes and producing value judgements.

"Impairment makes a difference, but society seems to insist that it is a mark of deviance - nature and accidents may create disability, we manufacture handicap."

(Thomas 1982 p.176.)

However, precise evidence of this would appear to be hard to establish, since the whole process is incredibly complex. Whether teachers view hearing impairment as a handicap and to what extent that influences their interaction with the child, will be reflected in their attitude to that child's placement in ordinary school. Attitude formation theory suggests that attitudes develop in three motivational contexts - the attempts of man to make sense of his world and his experience, pressure

from group membership and ego needs (Sarnoff et al. 1970 in Thomas 1982). Attitudes may be positive or negative, negative attitudes tending to stress the limitations imposed by the hearing impairment, positive attitudes tending to focus on the child first and the impairment second.

It is interesting to note that the research undertaken in the last decade tends to indicate more positive attitudes towards the integration of hearing impaired children in ordinary schools. Previous research indicated that teachers were ignorant about sensory impairments and therefore rejected children. In Tobin's study (1972) teachers were least willing to integrate sensory impaired children and this reaction was the same for both experienced and trainee teachers. Conine (1969) examined the attitudes of teachers towards disability and found that they were very similar to those of the general public ie. not especially rejecting or accepting, but 91% of the subjects associated disability with physical or sensory impairment. Kutner (in Neff 1971) surveyed research into teachers' attitudes and concluded that a considerable amount of fear, hostility and aversion existed, noting that one of the possible causes is lack of understanding. Difficulties in communication may exacerbate negative attitudes: the irritation felt in failing to communicate with a person can soon be displaced on to that person. In a study of the attitudes of one hundred and thirty-nine teachers towards the manageability of children with various handicaps in the mainstream, Horne (1983) indicates that 17% of the subjects rated deaf children as being impossible to manage in the ordinary classroom and 25% rated them as being very difficult. Comment has been made earlier in this chapter of the necessity of making a distinction between the terms 'deaf' and 'hearing impaired'. In Horne's study, it is very possible that the stereotype of 'deaf' was being operated by the sample.

Much of the research which has been concerned with teachers' attitudes towards integration has been based in the U.S.A. There are certain considerations to be made concerning the research methodologies used to tap attitudes. Although various research methods have been devised by social psychologists, they basically rely upon posing hypothetical questions about how people feel they would respond in particular situations. Baker and Gottlieb (1980) quote two approaches from which information can be acquired about teachers' degrees of acceptance of integration. One approach presents teachers with statements which require agreement or disagreement, thus eliciting

attitudes towards integration eg.

"Integration of special needs children will require significant changes in regular classroom procedures."  
(item 7. Mainstreaming Questionnaire Horne 1983 p.94)

The other approach gives descriptions of pupils with specific difficulties and requires the teacher to comment on the appropriateness of placement eg. (Table 3. p.96. Horne op.cit.). The difficulty inherent in these approaches is that the attitudes elicited are based on hypothetical responses to abstract situations. Hegarty, Pocklington with Lucas (1981) argue that teachers' true attitudes will only emerge when they have actually had experience of dealing with these children.

The five major components of teachers' attitudes are considered by Baker and Gottlieb (1980) to be:

1. Knowledge of pupil's academic and social behaviour.
2. Feelings about their own competence to teach them.
3. Expectations of receiving support.
4. Beliefs about the advantages and disadvantages of different placements.
5. Their general attitudes towards education.

Hegarty, Pocklington with Lucas (Ch.19 op.cit.) consider the following:

1. Operation of stereotypes.
2. Prevailing attitudes towards the disabled and minorities in general.
3. Self-perception of non-disabled groups.

The attitudes and subsequent behaviour of any teacher involved in an integration programme seem to be crucial. Meyers, Macmillan and Yoshida (1975) take the view:-

"Any particular low I.Q. child, placed with the 'right' teacher, regardless of the administrative arrangement (special class, regular class) is likely to benefit."

going on to add:

"Unfortunately, the reverse is just as true."  
p.9.

Northcott (1973) suggests that by developing positive attitudes, teachers will view the hearing impaired child as a challenge rather than

a burden. She adds that attitudes, interests and personalities vary widely among adults. Some of these can be effectively altered, but others cannot. It must also be noted that, according to Allport (1937), although two teachers may feel equally disposed to the concept of integration of hearing impaired children, they may differ qualitatively in their attitudes towards the particular child in their class and their behaviour will be different. In the present study the extent to which an individual teacher's behaviour correlates with their statement of intent will be investigated eg. if a teacher indicates that she believes she must make certain adaptations to her teaching strategies to accommodate the hearing impaired child, does she in actual fact make these adaptations?

Lynas (1980) describes the attitudes of teachers towards the integration of hearing impaired children as being on a 'positive discrimination continuum' which distinguishes responses in terms of the nature and amount of help which she observed teachers gave to the hearing impaired children in their classes. At one end of the continuum Lynas describes the teacher who makes no modifications to her teaching style, believing that the integration of handicapped children implies that they should be treated equally, and therefore no positive discrimination should be offered. At the other end of the continuum, she offers the description of the teacher, who by giving excessive positive discrimination to the child, may make the child too 'special', defeating the aims of the integration programme. In investigating teacher attitudes and behaviour, one must be cautious that the operation of restrictive stereotypes does not arise. This may have been the case in this and other research studies.

Certain factors have been put forward as producing favourable attitudes towards integration. Anderson (1973) emphasizes the amount and quality of information available to the teacher and the amount of experience which teachers have with these children. Loxham (1982) states that once mainstream teachers come into contact with hearing impaired children who are being integrated, they develop a very positive interest. A study conducted by the Rand Corporation in America which examines the influence of teacher attitudes, abilities and experience on the outcomes of planned educational changes is reported by McLaughlin and Marsh (1978).

"The most powerful teacher attribute in the Rand analysis was teacher sense of efficacy - a belief that the teacher can help even the most difficult and unmotivated students. Teacher sense of efficacy was positively related to the percent of project goals achieved, the amount of teacher change, total improved student performance and the continuation of both project methods and materials. Teacher attitudes about their own professional competence, in short, appear to have a major influence on what happens to change-agent projects and how effective they are."

p.85.

Hegarty, Pocklington with Lucas (1981) report that teacher competence is related to numerous factors, viz. general teaching skills, perceptions of pupils and their attitudes towards them, the precise nature of the pupil's needs, the teaching context and the kind of support available. Teachers' perceptions of their competence to teach children with special educational needs is reviewed by Gickling and Theobald (1975) and Gottlieb and Many (1979 in Gottlieb 1980) who report that many teachers do not feel competent, but that this competence would increase if supportive services are well established. Where teachers are already working in integration programmes, they feel more competent, but express reservations about their insufficient information on the educational implications of handicapping conditions, lack of knowledge about what should be expected from the pupils, management of behaviour problems, difficulties of matching learning material and lack of advice generally (Hegarty, Pocklington with Lucas op.cit.). A particular feature with hearing impaired children is highlighted as these research subjects report difficulties of communication: the problem of understanding the child and being understood.

Opposition from ordinary class teachers to integration programmes is discussed by Baum and Frazita (1979). They believe that many teachers are unprepared to integrate 'exceptional' pupils into their regular class programmes, stating,

"Much of their hesitation, it appears, is due to inadequate understanding of the characteristics of exceptional children and to their concern for the majority of typical students in their classrooms."

p.20

After taking part in workshops sessions, consisting of simulation components, meetings with administrators and special education teachers,

and discussion with parents of children involved in mainstreaming, Baum and Frazita (ibid) found that these sessions help teachers in their daily interaction with 'exceptional' children. Unfortunately, the researchers do not describe the methodology they used to tap teacher attitudes before and after the programmes. Schultz (1982) attempted to investigate the issues which teachers raise as being problematic in the ordinary classroom setting. Over 20% of the sample rated "planning for individual differences" as their major concern, perceiving themselves as lacking in expertise in accounting for individual differences as related to curriculum and instruction.

Horne (1983) reports that teachers in her study demonstrated a lack of confidence in their ability to work with students with special needs. They perceive mainstreaming programmes as requiring significant changes in their classroom procedures, and changes in their curriculum planning and instruction, which many of them were not necessarily willing to make. These results are similar to the research of Harasymiv and Horne (1976), in which teachers were perceived as having negative feelings towards the legislation of PL. 94 - 142, the Education for all Handicapped Children Act 1975. The most positive feelings appeared to be shown by educational researchers and College Professors of Special Education. Different perspectives for evaluating integration programmes may lead to quite different conclusions (Macmillan and Semmel 1977). A similar phenomenon is noted by Keogh and Levitt (1976).

"It is of some interest to note that, from our ongoing contacts with public school personnel, it is apparent that the closer one is to the actual operation of programs, the less certainty there is about mainstreaming. Legislators and state or district administrators are enthusiastic advocates, building principals are for the most part positive, and classroom teachers are frequently ambivalent."

p.8.

In a very thorough study, Croll and Moses (1985) surveyed four hundred and twenty-eight primary school teachers in ten local education authorities. Using interview techniques they assessed teachers' definitions of special educational needs, contact with outside agencies, and experience of, and attitudes to the integration of handicapped children in the ordinary classroom. The subjects were generally very positive towards integration, being more welcoming towards children with

physical and sensory disabilities than those with severe learning problems and behavioural problems. Having had experience of a child with a particular disability was associated with an increased willingness to accept another similar child in the future (Croll and Moses *ibid* pp.52 - 54).

However, experience of children with special needs is not, *per se*, sufficient.

"It was also recognized that certain skills would be needed if the teacher was to recognize and secure help for such pupils and was to adopt the most appropriate teaching strategies. This knowledge and the skills acquired through training would help secure positive attitudes toward pupils with special needs in the mainstream."

(Hodgson, Clunies-Ross and Hegarty 1984 p.89)

Accounts of initiatives in In-Service training are reported in Hodgson, Clunies-Ross and Hegarty (*ibid* chapter 9) and in Wolfendale (1987 pp. 105 - 115), and the reader is also directed to Sayer and Jones (1985) for specific reference to Initial Teacher Training perspectives, and to Hegarty (1987, chapter 10) for discussion of both In-Service and Initial Training initiatives.

Shaw and Shaw (1973), in proposing a teacher centred In-Service training model where programmes would be related to specific needs as perceived by the teacher, state that the validity of In-Service training rests on three assumptions which must be present.

- "1. Teachers can change their teaching behaviour.
  2. They can become self-sufficient in teaching the basic skills.
  3. They want to be competent in these areas."
- p.65.

A rather different model where special educators would function in a supportive role to change the behaviour of the class teacher is described by Lilly (1971). Both approaches are aimed at extending teachers' skills so that more effective provision can be made. However, care must be taken that support teachers do not operate solely in a consultative role, since they experience a loss of credibility where they do not deal directly with the special needs child (Gipps, Gross and Goldstein 1987).

The claim is made by Hegarty, Pocklington with Lucas (1981)

"The relationship between acquiring knowledge and attitude modification is far from direct."  
p.146

They cite the research of Haring, Stern and Cruickshank (1958) who found that, although In-Service training does lead to a significant improvement in teachers' knowledge and understanding, there is not an automatic increased acceptance of integration. Harasymiv et al. (1976) emphasize this point and state that close familiarisation may be needed to modify attitudes which are already held towards disabled groups. This change in private attitude, it may be argued, in reducing the amount of dissonance which a teacher would feel (Festinger 1957), could be attained by an appropriate In-Service model in which the teacher is able to value the concept of integration. More positive attitudes are seen by Hegarty, Pocklington with Lucas (op.cit.) to stem from direct experience and interaction with persons perceived as being more knowledgeable about the specific disability. Intensive interaction between regular class teachers and support teachers is noted as a vital method of modifying attitudes by Shotel, Iano and McGettigan (1972) who report only slight to moderate positive effects on teachers' attitudes after experiencing direct contact with 'exceptional' children.

The necessity of guidance and information is highlighted in the research by Chazan, Laing et al. (1978) who claim that, without this guidance, children may simply be offered the normal nursery or infant programme.

"In the ordinary schools, teachers often felt ill-informed about the nature of the handicaps and its implications. They needed guidance from those more experienced in dealing with special learning needs than they are, in the planning of programmes for individual children. Without some help from others, teachers may well offer to children with special needs the normal nursery or infant programme."  
p.40.

Rutter et al. (1970) found that, all too often, teachers are not given enough information and Anderson (1973) found that, in the main, teachers were dissatisfied with the amount of information given. She states that once the school has accepted the disabled child, there is little likelihood of any further advice, support or even encouragement. It is proposed to investigate, in the present study, teachers' perceptions of the amount and quality of guidance, information and support which they

receive, since these are considered to be most important variables. Pasanella and Volkmor (1981) suggest that teachers can develop and maintain a view of themselves as competent professionals able to promote learning in a wide range of students who have varying educational needs and learning styles. This can be achieved through teachers' participation in policy planning and decision making, through specific training in classroom methods and through strong staff support systems.

Whether or not attitudes are reported as being positive to the integration of hearing impaired children, what must be considered is the teacher's behaviour towards the child. How is the child viewed by his teacher and how do the teacher's perceptions affect behaviour? Is the child perceived as just another pupil, or as an abnormal member of the class? Harrison (1980), cited in Lewis and Richards (1988), reported:

"Much of the delay and deviance witnessed in the language of hearing impaired children results from a distortion of the child's linguistic experience, attributable to the reactions of many adults to the hearing loss rather to auditory deprivation per se."

p.33

Grant (1987) argues,

"Hearing impaired children are children first, very much like normally hearing children, and children who happen to have a handicap second."

p.3

She believes that a child may achieve his maximum potential if he is viewed as being a unique individual having the same basic needs as a normally hearing child, and if he is presented with an environment in which he can learn language as the hearing child does. Fulfilling the child's needs will be more difficult because of the hearing deficit and the concomitant language delay, but through carefully planned intervention and the surrounding of the child with as normal a linguistic environment as possible, his needs should be adequately met. In discussing their longitudinal study of twelve severely and profoundly deaf young children, Tait and Wood (1987) stress the influence of teaching style on the child's linguistic environment. Do teachers actively, deliberately, seek to provide an appropriate linguistic environment or do they distort that environment by over-emphasis on 'teaching' language?

Several studies have attempted to examine the extent of interaction and language development in nursery schools and playgroups. There is little evidence of extended free flowing adult/child conversation (Sylva, Roy and Painter 1980, Tizard and Hughes 1984) which is vital in the promotion of language development. Generally, teachers are seen as adopting a managerial, supervisory role. Children with special educational needs do not seem to receive better treatment (Chazan, Laing et al. 1980). Their study of teachers' interactions with children with special needs showed little attempt to encourage the quiet, withdrawn child, while the demanding, restless child was attended to, but only in an attempt to establish discipline or control. Teachers appeared to respond to the demands made upon them, and, if few of these were made, seldom initiated contact themselves. One might expect that hearing impaired children, for whom language development and encouragement of the use of residual hearing is so vital, would receive the best treatment of all.

The studies undertaken by Wood (1982), Wood and Wood (1984) emphasize the necessity for teachers to appraise their classroom speech as objectively as possible, and to refine it where necessary. The analyses of conversations between teachers and hearing impaired children reveal a high incidence of teacher control, which seemed to depress the child's attempts to converse, while frequent repair led him on to increasing dependency on the teacher. Where teacher styles of conversation are modified, the child also changes and becomes more active. Where the teacher relaxes control to give the child more opportunity for his own responses and reactions, the child takes longer turns, says more, and generally plays a more controlling role in the interaction. However, where control is reduced to a minimum, more language is gained from the child, but also a great deal more ambiguity. Using an extension of the Flanders System of Interactional Analysis, Huntington and Watton (1981, 1984a, 1984b) show that children in mainstream school are exposed to more complex sentences, greater sentence length and a wider range of different words than children in hearing impaired units or schools for the deaf. They state:

"If we are in earnest about promoting the oral language development of hearing impaired children, then there is no substitute for the provision of fundamentally normal linguistic exposure, both in terms of quantity and quality,

with simultaneous attention to powerful auditory stimulation."

(Huntington and Watton 1984 (b) p.143)

Another important area of concern is that of parent-teacher relationships. Good and secure relationships between home and school are vital for every child and the trust which is placed in this relationship is singularly important for hearing impaired children.

"Parents can only provide optimal help for their hearing impaired child if they are taken completely into the confidence of those making the assessments, and indeed become part of the team. They can do this effectively only if they understand every aspect of the assessment, why and how it is made, and take part in decisions and planning."

(Reed 1984 p.128)

Parents will require very sensitive support at all times to allay their natural anxieties, but particularly at difficult stages of their child's school career eg. school entry, school transition. Support from teachers will be more successful when parents are aware that they have a very active part to play in their child's education, irrespective of their own ability.

"They can be advised and instructed by the teacher and improve their own observational and assessment skills, and, perhaps therefore, acquire more realistic expectations of their child."

(Chazan, Laing et al. 1980 p.166)

The perceptiveness, understanding and flexibility of the ordinary class teacher are seen as some of the most important elements of success in an integration programme.

"Without a doubt, we must have the highest respect for teachers of the regular classrooms who have been willing to accept hearing impaired children, often with only minimal knowledge and preparation. These are the true professionals who hold the key to the success and preservation of the mainstreaming process."

(Gonzales 1980 p.20)

The perceptiveness of the teacher is a most important consideration. Fisher (1964) found that a major problem with ordinary class teachers was in convincing them of a pupil's hearing loss and its handicapping effect. Even with extensive In-Service training and support, do all

teachers realise the social and educational implications of a hearing impairment? This is an area which it is hoped to investigate in the present study, since, in many aspects, hearing impaired children may appear to function as normal, particularly in cases of mild hearing loss. In their longitudinal study monitoring the academic performance of fifty-eight children with mild to moderate sensori-neural losses, Paul and Young (1975) found that over half the teachers involved with these children did not believe that the children's academic problems had anything to do with their hearing losses, even though all of them knew that these were hearing impaired children. This finding illustrates the conflict which a hearing impaired child can face. Since he appears to 'hear' and respond appropriately a great deal of the time, his teacher develops certain predictions about his ability to communicate. When the child's responses are unpredictable, or where he ignores a question, his behaviour is regarded as negative. Because of his superficially normal appearance and communicative behaviour, he is expected to act within a certain framework. However, because of his hearing loss and language problems it is impossible for him to conform to this framework. As many roles may be assigned to the child as the teacher's subjective misinterpretations of his behaviour. He may be thought to be lazy, stupid or shy, while all the time he is hearing impaired.

In conclusion, much more needs to be done to encourage and support ordinary class teachers to develop commitment, skill, experience and flexibility, bearing in mind that,

"The skills and qualities required to meet most of the needs described as special, are those which are desirable in any good teacher for any pupils."

(Sayer 1985 in Dessent 1987 p.82.)

The role of the teacher is seen as crucial: through appropriate teacher attitude and behaviour the whole success of an integration programme may be realised.

"The attitudes of headteacher and teaching staff towards children with special needs is probably the most important criterion for the development of successful provision."

(Dessent *ibid* p.108)

and again,

"Whole school approaches to meeting special needs begin and end with the questions of value, philosophy and the attitude of teachers and headteachers."  
(Dessent ibid p.121)

With this type of approach, children are valued for what they are: they are not known firstly by their impairment. Yet rhetoric is not enough. There are many teachers with qualities of perception, understanding and flexibility who are already operating under far from ideal conditions with large classes in inadequate accommodation with falling resources. There are also many teachers who have difficulty in dealing with the children already in their class, without the addition of a child who will add to their stress and responsibility. Pressures within school were often a key factor in causing teachers to seek special educational treatment outside the ordinary school for their children. As Tizard argues (1966), such pressures were what made special education so necessary. If teachers operate already under too much pressure, despite all their goodwill and positive attitudes, integration programmes will not operate to the optimum benefit of hearing impaired children.

The present investigation will attempt to ascertain how the teachers of the sample children view themselves and their hearing impaired pupils, and their understanding of individual needs and ability to meet those needs will be a focal issue of the study.

SECTION FOUR

ATTAINMENT OF HEARING IMPAIRED CHILDREN

Many teachers and parents might consider that one of the very positive benefits of a hearing impaired child being educated in an ordinary primary school is that he would be surrounded by 'normal language' ie. the language spoken by the peer group. Without entering into the topical debate on signing, and what is meant by language when a hearing impaired child is being considered, it would appear reasonable to agree with the finding of Quigley and Kretschmer (1982),

"the primary concomitant effect of a hearing impairment is a deficit in English language skills."  
p.56.

Therefore, one of the primary aims in any integration programme would be the development of a child's linguistic ability. The review of the literature concerning language development and attainment considers firstly the theoretical perspectives which underpin the relationship between language and cognition, and subsequently, attainment in spoken language and in the literacy skills of reading and writing. Finally, since language and communication skills appear to play such a vital part in the successful integration of the hearing impaired child, the perceived benefits of some integration programmes are detailed.

#### 1. THE RELATIONSHIP BETWEEN LANGUAGE AND COGNITION

The perceptions of the intelligence of hearing impaired individuals have altered since research into this area began. It was suggested by Pintner et al. (1941 pp.126-128) that hearing impaired children were inferior intellectually to their normal hearing peer group. Their research relied heavily on paper and pencil group tests and tests yielding global single scores as an index of relative intelligence. Pintner and his colleagues believed that lower scores on such tests indicated general retardation. Given the state of knowledge about the nature of intelligence and cognition at that time, Quigley and Kretschmer (1982) report that it was not an unreasonable assumption which was made.

Reviewing research carried out after Pintner, Myklebust (1960) concluded that hearing impaired children were not quantitatively different but were qualitatively different in their performance, in that

they were seen as being intellectually less abstract and more concrete than their hearing peers. He based his conclusions on the research which he carried out in administering various tests, such as Raven's Progressive Matrices, which were thought to assess abstract abilities, and on which his hearing impaired group performed less well. It would seem unfortunate that the claim of Myklebust and Brutton (1953),

"Deafness restricts the child functionally to a world of concrete objects and things."  
(p.93)

may well have led to reduced expectations by some professionals and parents, with all the resulting disadvantages which that attitude fosters.

Research to test his hypothesis that hearing impaired children did not perform at a conceptually lower level was recorded by Rosenstein (1961). He reported that, providing the linguistic factors in a test were within the language experiences of the child, then there would be no differences in perceptual or cognitive functioning. Any differences would be due to environmental factors such as verbal language and communication deficits rather than basic competence. Hearing impaired children were regarded as intellectually normal, but with experiential deficits and this view was shared by Furth (1966) and Vernon (1967). The environmental constraints which caused performance differences were:

- "1. The inability of the researcher to properly convey the task demands because of language differences or deficits on the part of the subjects.
2. Implicit bias within the solution of the task.
3. General experiential deficits (including verbal language and communication in general) on the part of the subjects."

(Quigley and Kretschmer 1982. p.51)

Furth (op. cit.) emphasized the independence of thought from language and stressed that there should be some re-thinking of the educational priorities for hearing impaired children in the light of the research at that time. He argued that the development of an enquiring mind would come through experience in concrete situations, although facility in verbal language would play an important part. Furth claimed that cognitive operations could exist independent of language as we (hearing people) know it. However, many of his assertions are confusing,

"Language refers to the living language as heard and spoken in our society."  
(Furth 1964 p.147)

and later,

"Sign language is the natural language of the deaf."  
(Furth 1974 p.261)

His statements referring to the deficiency in hearing impaired individuals in standard oral English needs to be qualified in the light of the present intensive debate on the use of sign language.

The relationship between thought, language and deafness is discussed by Moores (1978) who considers that where hearing impaired children perform at a lower level than their peer group, this is due to an inability of the tester to communicate effectively rather than to lack of language or to experiential deficit. If this is true of research situations, the implications for the ordinary class teacher are exceptionally important. How well does she communicate with her pupils? To what extent do children fail because they do not understand what they have to do?

It would seem impossible to tease out whether the problems in communication actually interfere with the performance on cognition tests or with the internal processes of intellectual functioning. In other words, is the child restricted because of the verbal input by the tester, or the output of the child, or the deficit in internalised language? Schlesinger and Meadow (1972) found that although hearing children consistently performed better than their hearing impaired matched group on three major intelligence tests, there was no striking difference in the pattern of performance. The deficit was generalised, and there were no specific areas of poor cognitive performance, despite generally lower I.Q. ratings for the hearing impaired children. The researchers explained the lower performance of the hearing impaired group as being attributable to the communicative difficulties, and also stated that hearing impaired children who lack good linguistic skills are deficient in one of the important tools of thinking. Silverman (1967) and Best (in Meadow 1980) claimed that a greater grasp of language permitted a higher standard of performance. Best (ibid) compared the performance of three groups of hearing impaired children with varying exposure to signed and spoken language to the performance

of a group of normal hearing children. There was a correlation between language exposure and performance with the hearing group performing most effectively. The hearing impaired group of children with exposure to effective signed and spoken language (Total Communication), performed better than the other groups of hearing impaired children who received either spoken language or a mixed input. Best concluded that the higher the level of communication skills, the higher the level of performance on cognition tests. Furth and Youniss (1971) showed that while the hearing impaired child is handicapped in tasks which are based on language, in other tasks his performance is comparable with that of a hearing child. Their tests used symbol-pictures and were non-verbal in the conventional sense of the word, but they were clearly symbolic.

There has been much criticism of the general linguistic bias and the specific vocabulary used in Piagetian conservation tests with hearing children. It is thought that a child's competence in conservation may be hidden by difficulties with other aspects of the task eg. language, relevance to the child's experience (Donaldson 1978). In their research, Donaldson and Wales (1970) showed that children had difficulty with words such as "less", "more", and "same", and that children's failure to respond appropriately may be as much due to the structure of the child's language as to other aspects of his cognitive processes. Attempts have been made to alleviate the linguistic problem by assessing conservation non-verbally (Wheldall and Poborca 1980).

In the research of Oleron and Herren (1961) and Templin (1967) hearing impaired children were found to be retarded in the mastery of the concept of conservation of weight and volume by approximately six years. Oleron and Herren (op. cit.), in the hope of overcoming the language deficit of the group, introduced the use of a series of pictures as symbols in their tests. Furth (1966) believed that the use of pictorial symbols introduced yet another difficulty and that this was responsible for the poor performance. He carried out tests of conservation of weight, allowing his subjects to handle the weights, emphasizing the kinesthetic as well as the cognitive aspects of this test. Furth's subjects showed a retardation in the mastery of this concept of less than two years. In more recent research, Watts (1976) discusses the use of verbal markers, claiming that it is not possible to give conservation tasks to hearing impaired children in the usual way, because they cannot understand the questions. Questions like "Which one

has more?" "Is there more here, or here?" are completely linguistically impossible for a hearing impaired child. As Donaldson and Wales (op. cit.) showed, there were difficulties with the specific vocabulary of the conservation tasks when the tests were given to normal hearing children.

Watts (1981, 1982) administered conservation tests of cardinal number, discontinuous quantity and length, weight and area to three groups of children who were selected on the basis of age and intelligence. The three groups were a deaf group, with little or no naturally acquired speech and language, partially hearing children with some naturally acquired speech and language, and a group of hearing children with normal speech and language. The researcher hypothesised that the performance of the three groups on the test would not differ greatly if cognitive development took place through experience, and if the language content of the tasks was within the understanding of the deaf and the partially hearing group (the use of verbal markers was supposed to overcome any linguistic deficit). The performances of the three groups were quite dissimilar: the hearing group's performance being superior over the other groups. However, with more experience, the performance of the deaf and the hearing impaired group improved significantly. Although there are many factors which may have contributed to the differences in performance, Watts (1982) believes that the main factor was the considerable difference in experience between the hearing children and the others.

"With hearing handicapped children, any experiential deficiency is of course related to their language disability. It would seem that lack of language represents an indirect influence, whereas experience has a much more direct influence on intellectual functioning. It is this which causes one to suggest that the differences in performances of the deaf, partially hearing and normal hearing children on the conservation tasks can be more adequately explained in experiential rather than language terms. Deafness accounts for the lack of so many experiences which occur almost unnoticed in the life of normally hearing children."

(ibid p.9)

Lister et al.(1987) showed in their research with a sample of fifty-five children, whose hearing loss range was 25 dB - 125 dB, that it was possible to develop hearing impaired children's understanding of weight

through specifically teaching that attribute and giving children special experience of it. In a subsequent research project, Lister et al. (1988) indicate that hearing impaired children develop concepts of conservation of quantity in similar sequence to normally hearing children, but that they develop them later, with a delay of three-four years. Their discussion emphasises the difficulties in this particular area:

"Just as is the case in research with ordinary children, modifications or differences in procedure, materials, task specifics, let alone subjects and criteria of responses affect findings and result in conflicting conclusions about when understanding of conservation develops. The problem of comparability make it unwise to come to conclusions about the question of delay in hearing impaired children's development of understanding of conservation."

(Lister et al. 1987 p.494)

In a study undertaken by Fundudis, Kolvin and Garside (1979), the performances of a group of fifty-four hearing impaired children were compared with a matched group of one hundred and one hearing children on a series of non-verbal cognitive tests. Although the hearing impaired children performed significantly worse on all but one of the tests, the researchers believed that these results did not indicate that hearing impaired children were less intelligent than their hearing peer group.

"We believe that these findings reflect a difference of learning strategies between deaf and hearing children, with the former responding to the readily observable, manipulable and meaningful stimuli, and the latter coping more comfortably and spontaneously with the more abstract type of ideas."

(ibid p.172)

Fortunately, there has been an ever-increasing concern over the validity of certain tests which aim to measure intelligence when used with the hearing impaired child. Conrad (1979) claims that what emerges from the literature which discusses the nature of intelligence and its relationship to hearing loss is that some tests are more applicable than others. The Weschler Intelligence Scale for children shows similar distributions for hearing impaired and hearing children, while others, Hiskey Nebraska and Raven's Progressive Matrices do not. (Goetzinger et al. 1967) These tend to show the hearing impaired child to be of lower

intelligence when referred to norms standardised for hearing children. Salvia and Ysseldyke (1974) claim that, in many cases, the performance of the hearing impaired child will show little relationship with the child's actual level of functioning, and that teacher observation of a child's daily performance in class may be much more appropriate than a norm-referenced test.

It is interesting to note that, under the Education Act 1981, a child whose educational problems are seen as being related to his home language not being English, is specifically excluded from special educational provision and also from the assessment procedures required under the Act. Kyle (1985) states that even in 'non-verbal' assessment, the primary base is spoken language and goes on to say,

"We can therefore support the division of verbal and language abilities, and, in doing so, challenge the cultural fairness of most psychological measures even when presented non-verbally: the problem with deaf children is not language competence, but English language competence."

p. 138.

There is obviously great significance in the relationship between language and thought for teachers with hearing impaired children in their class. Language probably forms the basis for reasoning, playing a great part in the formation of mental processes and the development of patterns of behaviour and the ways in which children order and adapt to their environment. The assumption that hearing impaired children were deficient in linguistic ability because they were deficient in what may be termed standard Oral English led to the assumption which was made by early researchers that these children were cognitively deficient. The great emphasis in integration programmes of the language development of the hearing impaired child is very important, because delay in language development may cause difficulties in the mastery of complex systems of thought.

## 2. ATTAINMENT IN SPOKEN LANGUAGE

The internalised auditory verbal language of the hearing child, besides providing a major tool for thinking, is the foundation on which the

skills of reading and writing are developed. The lack of internalisation of this verbal language in hearing impaired children is what is blamed for their lower academic achievement (Quigley and Kretschmer 1982). Any restriction on the child's ability to hear normal speech patterns will affect the development of language as speech, and, in turn, academic performance. It is thought that the first three years of life are probably the most crucial for language development. Hearing children appear to learn language with little apparent effort and without being 'taught'. Hearing impaired children, faced with the same task, receive different linguistic data from the environment. Because communication is the key to language learning, young children must take part in communicative interactions, and even at the pre-verbal stage of communication, the young hearing baby and parent take turns during dialogue. Gradually the baby learns to make sense of his environment by visual reference to what is being said to him. On the other hand, the hearing impaired baby's attention is divided between visual references and the source of communication. Because the hearing impaired child receives a confusing, or even non-existent (in some frequencies), auditory input, this makes the processing of the different sound patterns of language very difficult (Downs 1977) and, therefore, the child's understanding of his world may be distorted.

Young hearing impaired children need to be surrounded by as normal a linguistic environment as possible and this is the approach which has been advocated by the Natural Aural Group (1981). It assumes that there will be relatively normal, but delayed progression in language. Maximum emphasis is placed on the use of residual hearing, however small, and the linguistic environment replicates many of the facilitative features of the maternal style outlined in the work of Snow (1977).

"Natural aural protagonists stress the need to draw from interaction research and from descriptions of normal linguistic development to ensure that the hearing impaired child is surrounded by as normal a linguistic environment as possible. From this, then, even with minimal, but well amplified, residual hearing, he can develop his own model of language and the world."

(Lewis and Richards 1988 p.33)

However, this does not mean that language activities should be unplanned. There needs to be a very significant amount of planning and

direction by the teacher.

"The language activities should have two emphases; first, the activities should be real and meaningful for children and should afford opportunities for them to communicate with another person about what they already know, and, second, the activities should be planned so that the children will also gain new knowledge about their environment and how to talk about and use new information. The classroom teacher becomes a language facilitator and a communicator more than a language teacher."

(McAnally, Rose and Quigley 1987 p.95)

It appears that, in the ordinary classroom, the practice of the teacher who operates a facilitative, enabling role, rather than a strictly didactic one, might be more appropriate for the language development of the hearing impaired child, and this will be considered with the sample children in the study. Certainly, teacher style is most important (Wells 1981, Wood et al. 1986). Tait and Wood (1987) suggest five stages of development in the communication of young hearing impaired children and believe that these stages are very similar to those found in (younger) normally hearing children. This delay in language acquisition may be problematic in that adults may forget the cognitive level of the child eg. one might talk with a five year old child as though he were two years old. Grant (1987 pp.49 - 57) identifies five stages of language learning. She stresses the need for a global approach.

"We must bear in mind the total process, the global aspect of language acquisition and the global child. This grand synthesis of phonology, syntax, semantics, and pragmatics must always be our concern as we promote language acquisition in the home and at school. The implication here is that discrete components never occur in isolation in spoken language, and therefore should never be taught in isolation. Hence, it seems inappropriate, even incongruous, that a separate person or time can be assigned to teaching language or speech."  
(ibid p.42)

Does the training of non-specialist teachers equip them with sufficient understanding of the elements of language and of the role which the teacher must play in language development? This would seem to be a problematic area. (Wood 1982, Wood and Wood 1984).

Results obtained by Pintner et al. (1941) showing that academic achievement of hearing impaired children was below that of a comparable

normal hearing peer group are mirrored in more recent research by Davis and Blasdell (1975), McClure (1977) and Rogers et al. (1978). Hearing loss has its greatest effect on areas requiring the greatest degree of language competences. Thus the development of internalised language for the hearing impaired child is regarded as vital. The disruption which hearing impairment brings to mother/child interaction has been documented by Gregory and Mogford (1981), Quigley and Kretschmer (1982) and is discussed in another section of this study. It is argued that children learn a language through their linguistic interactions with others (Wells 1979) and, therefore the timing and quality of this interaction are vital. The range of every child's experiences in his daily life is influenced by what others say and do, and, consequently, the hearing impaired child may live in a restricted world through lack of interaction and experience.

Except for children with the most minimal hearing losses, there is a strong probability that the hearing impairment will be responsible for deviances in speech perception and speech production, with the most severe hearing loss being responsible for the most severe problems (Markides 1970, Ling 1976, Mousen 1978 and Boothroyd 1978). The hearing impairment will cause the child to be deficient in his ability to identify the phonetic features of speech, and, as he only receives speech fragments, he cannot synthesize the fragments into a meaningful message (Levitt 1978). Gold and Levitt (1975) state that the differences between the speech of deaf and hearing impaired children appear to be more quantitative than qualitative, i.e. hearing impaired children make the same kind of mistakes which deaf children do, but they make less of them, and that their speech production may resemble that of a much younger hearing child (Oller and Kelly 1974). Where teachers have been asked to rate the intelligibility of speech of their pupils, Van den Berg (1971) reports that only 44% of pupils were given the top speech rating by their teachers, while Jensema et al. (1978) report that of children with losses no greater than 55 dB, only 51% had speech rated as very intelligible. The omission of consonants, particularly at the end of words is described by Gold and Levitt (op. cit.) as constituting about 50% of the errors made by children in their study. Consonants using tip of the tongue placement, as well as fricative and affricative consonants are those most usually omitted. Along with the omission of the final consonant some children may develop a prolongation and

nasalisation of the preceding vowel. Gold and Levitt (op. cit.) claim that the child realises something is wrong, cannot identify the problem accurately, and so alters the vowel.

Whereas it could be expected that a five year old hearing child might have a vocabulary of some 2000 words, Hodgson (1953) believes that only the unusual five year old hearing impaired child would have a vocabulary of 200 words. Di Carlo (1964) claims that a five year old deaf child probably has fewer than 25 words in his vocabulary unless he has received specific language instruction. Data on forty deaf and twenty hearing children of pre-school age was collected and analysed by Schlesinger and Meadow (1972). They found that 75% of the deaf children had a language age of 28 months or less, although their mean age was 44 months. A comparison of the vocabulary status of hearing impaired children and normal hearing children (Markides 1970) revealed a gap of two to three years in vocabulary development. Similar results were obtained by Hamilton and Owrid (1974). A study carried out by Davis (1974) showed that hearing impaired children were far less likely to have as broad a grasp of everyday concepts as hearing children. Concepts related to space, time, quantity etc. which involve vocabulary such as "least", "equal", "between", "always", "few", "as many" have no concrete referent and were found to be confusing for the group.

However, in their discussion of the research into vocabulary competence, Webster and Ellwood (1985) emphasize the problems of attempting to analyse vocabulary growth, since it is difficult to differentiate between words which a child may understand but does not actively use. The polysemic nature of many words in our language is stressed, and the validity of counting the number of words a child has in his vocabulary is compared to the more revealing examination of the range and flexibility of a child's use of words (Crystal 1976). It may be said that the difficulties which hearing impaired children face eg. inconsistent responses to their speech, may inhibit their efforts to produce spoken language. In addition, where a totally oral approach is used, there will be attempts to discourage the child from using natural gestures thus inhibiting his natural curiosity and cognitive development.

Differences in syntactical performance of hearing impaired children tend to be differences in degree. Quigley et al. (1976) found that even when hearing impaired children understood the vocabulary and

the associated concepts within a sentence, they tended to 'read' the sentence in a linear way, imposing a subject-verb-object pattern. Examples given by these authors

"The boy was helped by the girl.  
The boy who kissed the girl ran away.  
The boy learned the ball broke the window.  
The opening of the door surprised the cat."

tended to be interpreted by hearing impaired children as

"The boy helped the girl.  
The girl ran away.  
The boy learned the ball.  
The door surprised the cat."

A summary of the comparison of performance between hearing impaired and hearing students on syntactic structures is given in Quigley and Kretschmer (1982 pp.72-75). Difficulties in comprehension of sentences in which there are embedded relative clauses are reported by Davis and Blasdell (1975), while in a study by Wilcox and Tobin (1974) complex sentences were misunderstood by hearing impaired children 48% of the time. It should be noted that hearing children do not tend to use complex sentences in everyday social speech, and of course hearing impaired children do not either, and so the problem may only be evident when the child needs to call upon his deficient language skills for academic tasks. However, although complex sentences containing relative clauses may not be in his everyday language, Quigley et al. (1974) report that children will encounter such relative clauses in the second primer of a typical American reading series. Ross, Brackett and Maxon (1982) claim that the difficulty hearing impaired children experience in comprehending complex language is undoubtedly responsible for their typical pattern of deficient academic performance.

Although not directly relevant to the children in the personal investigation, who are all suffering from sensori-neural losses, it is thought important to consider the incidence and educational effects of conductive hearing loss, since the implications for class teachers are very wide reaching. In the ordinary primary school, the far more commonly occurring condition of fluctuating conductive deafness may go

undetected. A child may be thought to have poor verbal processing and language skills, a short concentration span and poor motivation. The reader's attention is drawn to a very interesting discussion of the effects which conductive hearing loss may have on a child's development (Webster 1986 p. 61-78).

"There are secondary consequences of even very mild hearing losses, which could contribute to a child's learning difficulties, over and above hearing loss per se."

(p.78)

As more children with sensori-neural losses are being placed in ordinary schools, this appears to have generated an increasing awareness of the large numbers of young children suffering from intermittent or fluctuating conductive deafness mostly caused by Otitis Media or "glue ear". Estimates of an incidence of 25% have been put forward by Brooks (1974) and Howie et al. (1975), while an incidence of 40% was reported in a study in New Zealand by Stewart (1983). The disease is largely one of early childhood. In 1984, more than 75% of the referrals of such children to the External Services for Hearing Impaired Children, County of Avon, were aged between four and eight years (Garner 1985). However, Howie (op. cit.) and Davies (1984) suggest that the incidence may be as high in babies and young children, but may not have been detected. The problems of detection are common, particularly in school, where the child's problem can be so easily overlooked, because it can be so unobtrusive (Fisher 1964). Over a ten year period, Knowsley Metropolitan Borough reported a detection failure rate with five to six year old children of 18.5 - 21%, and with seven to eight year old children of 12 - 14% (Hamilton 1981). The implications of these figures are so obvious for every teacher, particularly those of younger children. Throughout all the available literature, great emphasis is placed on the vital aspect of early detection. Nolan and Tucker (1981), Ross, Brackett and Maxon (1982) and Reed (1984) stress this importance.

Evidence of the effect of even temporary auditory deprivation is available through the observations of children with Otitis Media (Katz 1978, Kessler and Randolph 1979). In the latter study two groups of Third Grade children were compared, one group with a history of Otitis Media prior to the age of three years, and one group without that history. The experimental group appeared to be poorer in academic

achievements and auditory processing tasks and also received more remedial help than the control group. These findings were replicated in the studies of Dalzell and Owrid (1976) and Zinkus and Gottlieb (1980). However, Bishop and Edmundson (1986) suggest that there should be caution in inferring a cause-effect relationship between Otitis Media and long-term language disorder.

"However, once the child has recovered from the disease and is hearing normally, it is hard to demonstrate long-term detrimental effects on language, and a past history of Otitis Media does not seem adequate to explain persisting language impairment serious enough to merit attention from a speech therapist."

p.334

Hamilton (1972) studied two groups of hearing impaired children, one group with conductive hearing mean losses of 32 dB, and the other group with mild sensori-neural mean losses of 38 dB. There was a control group with no known history of hearing losses matched as closely as possible for socio-economic status, cultural background and sex. However, the hearing impaired groups had higher non-verbal abilities than the control group. Results indicated that, despite their higher non-verbal abilities, these groups achieved significantly lower attainment in the tests used.

"Thus a potentially superior group of children became a group with basic learning problems."

(ibid p.82)

A follow-up study on the children initially studied by Hamilton was undertaken by Dalzell and Owrid (1976). Although there was some improvement in test performance it was noted,

"Against the general improvement in the scores in the language tests there remains considerable retardation for several of the children and retardation for the group as a whole compared with the test standardisation groups."

(ibid p.89)

A survey by Garner (1985 p.90) investigated the varying provision made in this country for children with fluctuating hearing loss. The best ratio identified of peripatetic teachers of the deaf to the total school population was 1: 5,500 pupils while, in other areas, a ratio of over 1: 40,000 was identified. The average of the 71 Hearing

Impaired Services which responded was 1: 16,000 pupils. Garner states

"It is unlikely that any Service will have the resources to deal adequately with the large numbers of children likely to have difficulties caused by mild degrees of deafness."

(ibid p.97)

and goes on to suggest,

"It seems probable that we should concentrate on acting in an advisory role for the majority of pupils. This approach, coupled with improvements in the quality of the literature and information we provide, and an increase in the In-Service Teacher Education, probably represents the best use of existing resources."

(p.99)

It is obvious that, where the policy is to place deafer children who perhaps require daily help in ordinary schools, then peripatetic teachers of the deaf are going to be fully occupied in servicing their needs, given the present level of resources. Unless there is an increase in resources, specialist advice and help will not be available for a significant group of children with intermittent hearing loss at a most crucial stage of their education. However, once the problem has been detected, the ordinary class teacher can do much to help since many of the child's learning difficulties can be traced to poor listening strategies (Webster, Saunders and Bamford 1984). What is certain is that children suffering from congenital sensori-neural deafness whose detection and subsequent amplification treatment is delayed, will be much more completely deprived than children suffering from fluctuating middle ear problems.

In reviewing the literature it would appear that hearing impaired children do develop some system of grammatical rules, which may be greatly delayed, but which are parallel in many respects to the normal hearing child's system. It is possible, that, in many instances, teachers may actually react to a child's spoken language in a manner which could be non-facilitative. Conversation is controlled and the child may become a passive assimilator of language, the teacher's aim being to 'teach' language.

"It has been argued that deliberate efforts to teach language directly, simply usurp the child's central role. Such efforts are less facilitative because the child is not able to learn language by discovering what it can do."

(Webster 1986 p.83)

Interactions between adult and child may be characterised by greater adult control, greater use of questioning and efforts to teach language with the use of strategies of imitation and repetition. Webster suggests,

"In order to move children forward in their linguistic development, the teacher has to find ways of talking about hypothetical situations, releasing conversation from the concrete to more abstract situations, inviting speculation about cause and effect, and invoking imaginative experience. Perhaps the most important task in school is to preserve and foster the child's sense of wanting to know."

ibid p.86

The encouragement of a child's natural curiosity and desire to learn is undoubtedly what primary school teachers would consider as being very important for all children. For hearing impaired children a consistent and planned approach to achieve this aim would seem to be paramount.

In summary, the hearing impaired child's language performance compared to that of his normal hearing peers demonstrates an ever-increasing gap in vocabulary growth. There is great difficulty in understanding or expressing colloquial expressions, verbal nuances or proverbs. Many children interpret passive sentences as active, and negative sentences as positive. There is often confusion in the use of tense. In everyday social conversation, these difficulties may not be glaringly evident, but where performance on standardised language tests and academic achievement are concerned, the difficulties become manifest.

### 3. ATTAINMENT IN LITERACY SKILLS: READING

When a hearing impaired child starts school, he begins the vital process of learning to read, but he brings to this process an impoverished vocabulary. Whatever the teaching model used ie. 'bottom-up' top-down'

or 'interactive' (Webster 1986 Chapter 4), the child is obviously at a disadvantage. For the average hearing child, the task of learning to read is one of learning another code for the language he already knows. If the child can "crack the code" (Quigley and King 1981) then he can understand the message: not so the hearing impaired child. Without the same basic knowledge of language on which to build, the code and the language are both unfamiliar, and learning to read often becomes a language learning process at the same time.

"Where the typical hearing child brings to the reading process a substantial knowledge base resulting from a wide variety of infant and early childhood experiences which have been internalised through the spoken language acquired by interaction with parents and significant others, the deaf child typically brings to the same process a very impoverished knowledge base. This is not always due to lack of exposure to early experiences, but often to the lack of a fluent language and communication system with which to signify and internalize those experiences in some manipulable code."

(Quigley and Paul 1984 p.137)

They add,

"In addition to the lack of a substantial knowledge base, deaf children often are lacking in inferential skills and in figurative language and other linguistic skills which develop automatically in young hearing children. In short, they do not have the experiential, cognitive and linguistic base needed to learn to read fluently."

(loc. cit.)

It would seem that progress in reading for the hearing impaired child depends on the child's understanding and use of language in communication. In a study undertaken in Sweden, Soderbergh (1985) describes how a child learns to read and learns language at the same time, thus reading enriches the child's total language capacity. Building on the child's experience of words, the teacher should develop a first reading vocabulary and the beginnings of reading should be based on a Language Experience approach. The reading process could then be developed through the use of carefully controlled linguistic material. However, Webster (1986) states,

"Reading difficulties begin as soon as the deaf child tries to understand more complex text: the point at which the reading skills of the deaf are said to plateau. The

gap which has to be bridged is where mastery of complex syntax and discourse features in written language are necessary to deduce meaning. This is the point at which the text becomes decontextualized, released from the concrete, 'here and now', the point at which the ties with concrete reality are transcended, where ideas are pursued without a social context."

p.210

The plateau effect to which Webster refers is that many severely hearing impaired children reach a plateau in their reading development (Brooks 1978, Reich and Reich 1974). It implies both cumulative and progressive deficiencies in reading skill over time and reflects what is considered to be a deficit in the child. This 'deficit' approach will reveal little about the process of reading, which should concern teachers much more than the assessment of reading. The question "How does the hearing impaired child read?" seems to be much more appropriate than "Why can't the hearing impaired child read as well as his peer group?"

Low levels of attainment in reading are reported by many researchers (Trybus and Karchmer 1977, Ives 1977, Jensema 1975). Conrad (1979) tested all deaf students aged 15 - 16½ receiving special education in England and Wales on Brimer's Wide-Span Reading Test. The mean reading age of the group was found to be equivalent to that of a nine year old hearing child. He proposed that the defining variable which affects reading achievement is the child's ability to use inner speech. In reading, Conrad states that inner speech enables the child to "escape into full phonetic coding" (ibid p.163), and that children who indicate evidence of inner speech, will be better readers. An interesting analysis of Conrad's position is undertaken by Webster (1986 p.161-164). Moores (1967) and Wilson (1979) concluded from their research using cloze procedure and inferencing tasks, that scores achieved by hearing impaired children on standard reading tests were spuriously high, and did not accurately reflect the level of functioning in this particular skill. Again, the question "Does the hearing impaired child read by a different process?" must lend itself to consideration.

"A basic question of validity arises. Do test materials sample identical test behaviour in deaf and hearing children? Can we assume that the same reading-age score in a deaf and hearing child is achieved in the same way? There is, in fact, a strong possibility that commonly used 'silent' comprehension or cloze tests, may be tapping quite different processes in deaf and hearing

groups. How far the deaf child's performance on a reading test reflects nothing other than linguistic deficiencies is also open to question."

(Webster 1986 p.134)

In a longitudinal study undertaken in the U.S.A. the reading comprehension of 1664 hearing impaired students was assessed in 1974 and again in 1979. Wolk and Allen (1984) in analysing the data, make the following comments.

"The typical growth rate in reading comprehension is very moderate for the average hearing impaired student, and approximates one third of a grade equivalent change each year through the elementary and secondary grades. A profound hearing loss negatively influences growth."

p.174

However, this sample does not appear to have been composed of "average hearing impaired students", since many of the subjects, (44%), had a profound hearing loss (91 dB+), many of them having been victims of the Rubella epidemic in 1964-65.

Webster, Wood and Griffiths (1981) compared the performances of one hundred and twenty children - two matched groups - on the Brimer Wide-Span Reading Test. The interesting facet of this study was that analysis was made of the types of errors made by the groups. The hearing impaired children made more errors overall, but a significantly lower proportion of those errors was linguistic in nature. The errors were ones in which no obvious connection could be made between the meaning or structure of the sentence and the word which the child offered. Very often the choice of the word depended on its position. The hearing impaired children continued to provide answers, even when the questions were obviously too difficult, revealing many more errors. Syntactical and semantic cues were not available to them in their search for dissonance (Clay 1977). Different processes in reading were used by both groups, and the reading ages obtained on the Wide-Span test may not be reliable guides to the functional linguistic skills of hearing impaired children. Further research conducted by Wood, Griffiths and Webster (1981) using the Southgate reading test came to the same conclusions. Whereas, on the Wide-Span Test, hearing impaired children tended to select similar words on the basis of common spatial position, on the

Southgate test they tended to capitalize on their memory for individual familiar words and upon word association. eg.

<u>Test Item No.</u>	<u>Most popular answer underlined</u>
12	Birds are covered with - toes/skirt/sky/ <u> nests</u> /feather.
31	Rich men can afford to live in - luscious/poverty/luxurious/luxury/ <u>wealthy</u>

The results obtained in these two pieces of research emphasise the weakness of tests based on normal hearing norms when used to test the reading ability of hearing impaired children since the same test score by hearing and hearing impaired children is likely to mean different things.

A paper presented by Howarth et al. (1981) reports a comparative study of the reading lessons of deaf and hearing children. Deaf children stopped reading or were stopped by their teachers much more frequently, and the teachers of the deaf children interpreted their children as having a greater range of difficulties: articulation failure: lack of understanding of meaning. They also praised their children much less frequently. There seems doubt about how much benefit deaf children could derive from connected language when they are stopped so frequently. One important aspect of this study was the revelation of different approaches to the teaching of reading by two schools involved in the project. One school attempted to use the written word as a vehicle not only for teaching reading but also for language itself. The other school, in which children were reading more advanced texts at a faster rate, argued that the child cannot learn to read until he has mastered enough vocabulary and grammatical knowledge to translate the printed code into a phonetic one.

There are clear implications for teachers from the research (Webster et al. 1981, Howarth et al. 1981). There must be greater insights into the theory of reading development, and, in particular, into the practice of teaching reading to hearing impaired children. It may not be that a different approach is required, rather that we look more closely at how we develop and monitor the teaching of reading with

normal hearing children and consider very carefully the different processes and strategies which hearing impaired children adopt.

#### 4. ATTAINMENT IN LITERACY SKILLS : WRITING

It is claimed that the best single indicator of the hearing impaired child's command of language is the quality of his spontaneously produced written language (Quigley and Kretschmer 1982, Kretschmer and Kretschmer 1978). However, writing cannot be described as a simple process of transcribing speech into printed symbols. Beard (1984) describes three stages in the act of writing:

1. 'listening' to one's own ideas.
2. translating ideas into the formal structures of language.
3. reviewing what has been written.

For most young hearing children specific difficulties may be experienced at the second stage when they actually do not know what a written sentence looks like. For the hearing impaired child, the first stage may be problematic: the child needs to be asked to write about that which is familiar, a very similar approach to that taken in reading. The second stage may also be difficult. Wilbur (1977) indicates that the hearing impaired child often appears to tackle the writing task "sentence by sentence". A hearing impaired child may not have heard the key function words which would enable him to connect and extend sentences. This may affect both the second and third stage in which the cohesion of the text needs to be reviewed, and pronouns and conjunctions are used to extend and strengthen sentences.

A review of research projects into the spontaneously written language of hearing impaired children is documented in Kretschmer and Kretschmer (1978). An analysis of the writing of two hundred hearing impaired children and two hundred hearing children, matched for I.Q. and age, was undertaken by Myklebust (1965). He used the Picture Story Test which he had devised which includes measures of output, syntactic control and abstractness of the composition. The hearing impaired group were found to use a higher proportion of nouns and this was taken as a criterion for evaluation, the claim being made that the language of the hearing impaired group was substantially more concrete than that of the hearing children. Verbs were the second most commonly used parts of

speech and then adjectives, while what might be called the syntactic class, articles, prepositions and conjunctions were used much less frequently. Hearing children tended to use adverbs at about the age of nine, while hearing impaired children, even at the age of fifteen, hardly used them at all.

Moore (1970) used cloze procedure to investigate the linguistic ability and style of hearing impaired children's writing. He concluded that, even where the language was grammatically correct, it was stereotyped: modes of expression were restricted and repetitive and vocabulary was limited. Language of hearing impaired children developed at a slower rate, and when it did develop the sentence constructions produced were different from those of hearing children. His research findings are borne out by those of Quigley, Power and Steinkamp (1977) who claim that for many hearing impaired children complete mastery of syntax may be impossible. The research projects of Myklebust (1965) and Quigley et al. (1978) provide some very interesting information: the former about the degree of abstractness and the latter about deaf syntax. Arnold (1978) reiterates the basic question "Why do deaf children produce such deviant language?" He believes that the hearing impaired child needs to code the world through his sensory systems, mainly through vision. This may interact with the acquisition of language.

"It appears that the deaf child has difficulty with ideas of time and sequence. This may compound the child's problems with sequence and syntax in language."

p. 199.

A different strategy seems to be adopted by hearing impaired children in spelling than that used by hearing children. Cromer (1978) suggests that hearing impaired children must learn language by eye, and it would appear that the phonological information available to the hearing child is denied to the hearing impaired child (Wimisner and Arnold 1986). In their sample of ten deaf children (mean age 10.8), ten partially hearing children (mean age 9.8) and ten hearing children (mean age 7.6), they found that the deaf children were less confident than the others and used mainly a visual spelling strategy. The partially hearing group appeared to use a limited form of phonetic code, but mostly a visual strategy, while the hearing group used both phonological and

visual-orthographic strategies. The deaf children were inferior to the other children in spelling ability, although, in some cases, they were three years younger. Hoemann et al. (1976) showed that most hearing impaired children in their sample spelled as well, if not better, than a matched group of hearing children. There is evidence to suggest that visual perception and sequencing skills are used by hearing impaired children to promote their facility for correct spelling (Arnold 1979). Whereas hearing children tend to spell phonologically, hearing impaired children tend to have the correct letters but placed in the wrong order. Hoemann et al.(op.cit.) give examples of some spelling errors made by hearing impaired children:

<u>word as spelled</u>	<u>intended word</u>
thristy	thirsty
vechile	vehicle
interput	interrupt

In a study undertaken in North Wales, Eckley, Ellis and Edwards (1980) showed that hearing impaired children indicated a superiority in spelling performance to a matched control group. They suggest that this superiority could be attributable, in part, to the individual support and attention which the children had received. Bunch and Clarke (1978) investigated the success with which hearing impaired children learn the morphological rules of English. They looked at whether the children could use the plural, possessive singular and whether tenses were used accurately, using nonsense words devised by Berko (1958). Analysis showed that hearing impaired children experienced great difficulties with morphological rules, and these difficulties are often apparent in the spontaneously written language which they produce.

A considered view of the written language of the hearing impaired would be that it is both linguistically delayed and different. In summary, there is substantial support for the view of Cooper and Rosenstein (1966).

"Their written language compared to that of hearing children was found to contain shorter and simpler sentences, to display a somewhat different distribution of the parts of speech, to appear more rigid and more stereotyped and to exhibit numerous errors or departures from standard English use."

p.66.

## 5. ANALYSIS OF THE PERCEIVED BENEFITS OF SOME INTEGRATION PROGRAMMES

Attempts have been made to evaluate the academic benefits of integration programmes. Geers and Moog (1978) undertook a study in which they found that hearing impaired children in an integrated setting had significantly higher spontaneous language scores than children who remained in special school. Doehring, Bonnycastle and Ling (1978) assessed the reading and language scores of a group of integrated hearing impaired children. Scores at or above normal grade level on 9 of 11 related reading tests were achieved by ten children who were assessed as being profoundly deaf, but they did not perform so well on language tests. Dale (1984) reports an investigation in Haringey where seven children with a mean hearing loss of 76.7 dB were placed in ordinary schools in 1972. Seven other children were selected as controls and remained in segregated placement. Speech production tests and the Hamp Picture-Assisted Reading Test were administered to all the children: the academic ability of both groups was rated as average. Substantial support in the ordinary class by one teacher of the hearing impaired and three support teachers was given to the experimental group. After one year the children were re-tested and the integrated group were found to have made an overall mean progress of 1.03 years in reading vocabulary ages as opposed to 0.20 years made in the previous year in their segregated setting. All children in this group had made gains in speech articulation. Although the progress made in reading was considerably better than that of the control group it was not felt to be statistically significant because of the small number of subjects involved. Interestingly, the extra cost of this research project was £1300 per child per year (in 1973), but it was felt that by accepting less severely hearing impaired children into the project, who would require less support, the cost of the scheme could be halved. Since this project was operating pre-Education Act 1981, the local authority was not restricted in the financial provision and resources which could be made available, but even with the savings on special school placement costs, there appears little possibility that this project would be repeated.

Some research studies have illustrated a less severe academic

retardation than have been found in studies mentioned previously. The academic, speech and psycho-social status of integrated hearing impaired children were assessed by Reich et al. (1977). The children were participants in different types of integration programmes for different periods of time. A total of one hundred and fifty-four children were observed: seventy-seven were fully integrated (average hearing loss 42 dB): forty-two were also fully integrated but receiving specialist support (average hearing loss 54 dB): thirty-six were in special classes (average hearing loss 63 dB). In academic performance (reading and language tests) the first group of integrated children were performing at or above grade level, whereas those receiving specialist support or in the specialist classes were a year or more behind. The hypothesis was formed that if an integration programme is educationally beneficial, then the longer children are integrated the more progress they should make. If, however, their academic superiority in relation to the other groups was the cause rather than the result of the integration programme, then the length of time in the programme should make no difference. The data analysis suggests that the longer the children were integrated, the higher their level of achievement. This was true not only for the group integrated without support, but also for the other integrated children. The third group of children (those remaining in special classes) tended to fall further behind in reading the longer they remained in those classes. These findings were replicated by Van den Horst (1971), Rister (1975), Reich, Hambleton and Houldin (1977). In the latter study, benefits in academic attainment were seen to correlate to the degree of integration and children were seen to be successfully integrated if:-

"The student was reading not more than two years below age level, and if the teachers rated his or her performance as being at or above the class average."  
(Reich et al. 1977 p.539)

The importance of criteria such as parental support, additional support in school when required, I.Q. score not too far below 100 and the essential necessity for periodic reviews were stressed, but it was stated that the most important attribute was considered to be the pupil's level of comprehension.

"The prime requisite for successful integration is not a certain level of residual hearing per se, but the student's ability to comprehend speech."  
(ibid p.541)

We must be fully aware that an integrated setting may not be the ideal placement for all hearing impaired children. The actual setting in which a child is educated may act as a stimulant to performance or, of course, it may have the opposite effect of being a depressor. The anti-integrationist lobby would argue that the hearing environment of the ordinary school is of little benefit to many children.

"A hearing environment is not an oral environment but a meaningless environment, a nothing environment."  
(Ladd 1978)

They believe that, in practice, educational integration does not work, and what happens in ordinary schools, according to Turfus (1982) is not integration but "pseudo-assimilation". However, for many hearing impaired children, educational integration can, and does work, and through enabling the child to listen and speak as well as he can, ordinary school prepares him more adequately for the hearing world outside.

SECTION FIVE

ADJUSTMENT AND ADAPTATION OF HEARING IMPAIRED CHILDREN

The placement of a hearing impaired child in an ordinary school does not, per se, guarantee integration. The rationale behind integration of positive total educational and social experience may not be realised: what actually happens within the school is the critical factor. A hearing impaired child may be totally assimilated within his peer group and enjoy social acceptance and educational achievement, or he may only experience token integration whereby he does not perceive himself, neither is he perceived by the peer group, as a member of the class. The implications for this study are most important: all five subjects are integrated into ordinary primary schools. Whether total functional integration is achieved in each case merits considerable consideration. The severity of the hearing impairment is not a factor which determines successful integration (Fraser 1975, Gonzales 1980) except in so far as it affects the adaptation and adjustment of the child. What must be considered is the relationship between self-concept and subsequent social development, academic achievement and functioning within the classroom.

It has been suggested that the self-concept develops from the earliest kinds of experiences that an individual has with his surroundings, particularly those involving interpersonal relationships. How parents view their hearing impaired child would seem to be of paramount importance in the formation of positive self-concept, and the responses of the parents to diagnosis and their subsequent interactions will have a most definite effect on the child. The development of the self-concept may be considered to be particularly relevant to the hearing impaired child, since, if he perceives himself in a negative manner, he will assume the role which is dictated by such self-perceptions. Therefore, it is felt important to consider the perceptions and attitudes of those 'significant others' ie. parents and teacher, to those children who are the subjects in this study.

Interest in the development of the self-concept has been generated by sociologists with the recognition that one's self-concept is a reliable indicator of mental health, and that there is a very strong relationship between self-concept and subsequent social development, academic success and functioning (Quigley and Kretschmer 1982). The development of the self-concept depends upon an individual's experience and interaction with others (Cooley 1902, Mead 1934.) This

position has now been elaborated into what is known as the symbolic interactionist approach, whereby the development of knowledge concerning the self is dependent entirely upon one's experiences with others, which provides information in the form of feedback and expectations regarding the self. In a review of the literature, Garrison and Tesch (1978) state that a number of studies indicate that hearing impaired persons have inaccurate self-concepts which are either overly positive or negative. These studies inferred that the development of the self-concept is affected by the constraint which deafness imposes on experience by limiting interaction and linguistic feedback. Meadow (1968, 1969) stressed the effect of negative feedback received from significant others: the quality of interaction between the hearing impaired child and parents was closely related to self esteem. Ratings of emotional adjustment of hearing impaired children were found to be significantly related to positive parental attitudes (Neuhaus 1969).

The development of the self-concept was seen by Myklebust (1960) to be affected by the degree and manner in which the hearing impairment imposed on experience through limiting feedback from the social environment. In his research, using the Draw-a-Human Figure test, he found that hearing impaired children's self-perceptions differed from those of normal hearing children in terms of body image. Using a sociometric test, Craig (1965) compared self-ratings of hearing impaired children with their peer ratings and found that the hearing impaired group had inflated self-regard. These findings are consistent with the much earlier research of Brunschwig (1936).

Some caution must be exercised in the acceptance of conclusions based on personality measurements which are notably difficult, and results may be biased by linguistic deficiency. Blanton and Nunnally (1964) used a semantic differential technique to compare the attitudes of hearing impaired young people with those of their normal hearing peer group. The hearing impaired group used fewer evaluational concepts in a word association measure, and they also evaluated themselves as less good and less well adjusted. A hearing impaired child's understanding of himself will be hindered by his linguistic deficiency as well as relationships with others. Lewis (1968) found that teacher ratings of personal maturity were positively related to socio-emotional language which he subsequently termed orrectic language. Using the Bristol Social Adjustment Guides (B.S.A.G.) Rodda, Godsave and Stevens (1974) found a

high correlation between children's speech, language and social adjustment, and also between the level of academic achievement, speech, language and social adjustment. In the present study these are thought to be essential criteria when considering the placement of a hearing impaired child. Highly intelligent children with good social adjustment and competent language skills are those most likely to achieve functional integration. The role of the parent and that of the teacher are vital in the development of these criteria of speech, language, social adjustment and attainment.

Another area of concern regarding the psycho-social development of hearing impaired children is the area of social maturity or adaptation. Social adaptation may be considered to describe the way in which an individual responds to the social requirements of society. The child's response to his parents, family, school and the adult world are all indicators of his social competence which is affected not only by his innate cognitive and personality factors but also by different environmental experiences. Satisfactory social adaptation may be restricted by the experiences of the hearing impaired child and his very early experiences of parental interaction may be the most restrictive.

"The first year of life is the beginning of the mainstreaming process and the attendant psycho-social adjustment. The hearing impaired infant is born within the matrix of an existing family. The mainstream for him is the family constellation and his developing role in it. These are crucial and irreplaceable years."  
(Ross 1978. p.22)

The natural reciprocal relationship between parents and normal hearing children which develops through well-defined patterns of verbal communication does not develop with the hearing impaired child. The child's minimal response to parental verbalisations modifies the relationship and there is a tendency to reduce expectations and curtail independence by parents (Ross *ibid*). Whenever a hearing impairment has been diagnosed, there needs to be very positive parental counselling so that parents may be aware of how they might consciously alter their parenting practices, thus preventing experiential deprivation.

It is at this early stage that differences in behaviour may begin to manifest themselves. A hearing impaired child can respond to sounds and may develop language, but his response will be erratic owing

to his partial understanding. Where a child may not have been diagnosed or even suspected of having a hearing loss, his erratic response may result in him being incorrectly "labelled" depending on the type of response. A self-fulfilling prophecy is then set in motion and the parent adapts his practice with the child. As the child becomes "less responsive" the parents are less stimulated and, in turn, reduce the frequency and alter the kinds of behaviour to which the child is exposed. The parents may feel that it is necessary to keep the child "safe" and restrict his opportunities to play with other children, thus denying his overall needs of socialisation. The child may be relieved of certain obligations and expectations with a considerable lowering of experiential input which will be reflected in his interpersonal relationships. As the child is given less responsibility, very often parents tolerate increasingly deviant behaviour. The response of parents and their child-rearing practices are critical.

"In the case of children, the most important reference group is generally shown to be the family, especially the parents. Thus, if parents define their children positively, their children are likely to have high self-esteem regardless of the views of anyone else in society."  
(Darling 1979 p.20)

The author emphasizes the importance of identifying the significant persons and groups who constitute the reference set of the child. In the present study, the reference set for each subject is considered to be the parents and the teacher, and it is thought essential to determine the definitions held by the reference set of each subject.

In a small-scale study which involved the psychiatric and social evaluation of children with meningomyelocele, Kolin (1971) found that the effect of parental adaptation was the crucial determining variable regardless of the degree of physical impairment.

"All of the children with poor adaptation were offspring of parents with poor adaptation. Parents with good to fair adaptation produced children with a comparable level of adjustment in all but one instance."  
(Kolin *ibid* p.1017)

Although this study was concerned with children with physical impairment, one could suggest that the findings might also be relevant to hearing impaired children because of the vital role which parents

play in language development. Kolin also emphasized the importance of parental attitudes to school.

"Non-accepting parents were critical of school and medical personnel - parents who define school in negative terms were likely to have children with similar definitions resulting in poor school adjustment."  
(ibid p.1018)

Parental acceptance of school might then be considered a crucial variable (Darling 1979), and it is hoped to ascertain, through interviewing techniques, the views which the parents of the children in the present study hold towards their child's school.

If the hearing loss is prelingual, the child will not naturally acquire language through the auditory channel and will not therefore develop a basic symbol system of communication.

"Knowledge and learning is dependent upon communication. An individual's mental health, his acceptance by his peers, his general adjustment to society, and his ability to earn a living are all dependent upon communication. This is not to say that there are not other important factors, but rather that without communication, the other factors cannot play their part."

(Brill 1975 p.379)

Often the restricted linguistic development of the hearing impaired child prevents language abstraction and generalisation from the concrete (Ives 1972), and the handicapping effect of hearing impairment on the child's socialisation cannot be underestimated when the vital part which language plays in social development is considered. The importance of play and role play in social development is thought to be worthy of discussion at this point.

In the first two years of life, a child's play largely consists of using movements and sensations as a means of discovery eg. the young baby grasping for a blanket. However, symbolic elements enter into play as the normally hearing child develops language. Children then begin to play in the company of other children, at first alongside other children and ultimately with other children. Children's play is therefore initially egocentric and little genuine interaction between children takes place. But, as language develops, there is an increase in the shared use of a symbol system of communication, and, by the age of four years, a child will have learned to play with other children. However,

the main exploration of the world through play may be denied to the hearing impaired child.

"The hearing impaired child often starts out with a distinct disadvantage. He may be wary of new situations and new materials: he may want to hold tightly to toys because of inexperience of sharing. When communication has made explanation difficult, a child may find himself unable to wait, to take turns or to sustain his attention."

(Webster and Ellwood 1985 p.73)

Role play is an aspect of play which develops from about the age of four years where the child learns to look at the world from the point of view of others, and where, through imaginative play he can explore and learn to cope with his feelings. Cooper, Moodley and Reynell (1978) state that imaginative play is a foundation to the child's understanding and broader intellectual use of symbols. Children's intellectual and emotional development is accelerated through meaningful play, and the child moves on from the "here and now" of a situation, becoming less dependent upon the ability of others to recognize his needs from his behaviour. The comprehension of language and the use of language in thinking is enmeshed in play, and the hearing impaired child is severely restricted through the experiential deprivation he experiences. Heider and Heider (1941) observed severely restricted role play in the free play of deaf children, and believed that this was an indication of the effects of linguistic impairment on orrectic behaviour (the term orrectic was used by Lewis (1963, 1968) to describe the striving for cognitive and affective equilibrium). Lewis states that as a child acquires language, he is able to differentiate a diversity of orrectic attitudes in himself, and in others, and thus is able to modify his attitudes and behaviour. Social development in pre-school years may therefore be severely restricted through the handicapping conditions of hearing impairment.

Some interesting studies of levels of interaction have been undertaken with pre-school children. Brackett and Henniges (1976) looked at the communicative interactions in a nursery school setting: hearing impaired children with the poorest verbal skills interacted minimally with normally hearing children or with hearing impaired children with better verbal skills. It appeared that the hearing impaired children with better verbal skill did not make any distinction

in their interactions. In a small sample of six children (three normal hearing, three hearing impaired) who were attending an integrated nursery, Arnold and Tremblay (1979) observed free-play situations. The interaction and resultant modification of communication skills as a function of hearing status were closely analysed. The indications were that normal hearing children interacted more frequently with other hearing children on several behavioural categories (approaches, vocalizations, social play and physical contact). Hearing impaired children tended to approach other hearing impaired children more frequently than they approached normal hearing children although this preference was not statistically significant. An attempt to modify normal hearing children's frequent and persistent refusal to interact with profoundly deaf children was made in the research of Vandell, Anderson, Ehrhardt and Wilson (1982). The results replicated previous research of Vandell and George (1981) where both hearing and profoundly deaf children interacted more frequently and for longer periods with children of the same hearing status. This interactional pattern was not modified by adult intervention. The researchers believe that lack of speech on the part of the deaf child and lack of sign language proficiency on both sides could have been the critical barrier to interaction and therefore to social acceptance.

Levy-Shiff and Hoffman (1985) hypothesized that young hearing impaired children do not have the specific communication skills required to initiate and maintain social contact with other children. They undertook a study on the social competence skills of thirty-six children, subdivided into three groups: twelve partially hearing, twelve severely hearing impaired and twelve normal hearing children of pre-school age. The partial hearing children appeared to be markedly less socially competent than normal hearing children, with the severely hearing impaired being only moderately less competent. Significantly less time was spent in social contact with others by the partially hearing group. Severely hearing impaired children had almost as much social contact as normal hearing children: the single difference between these two groups being the severely hearing impaired children's reliance on gestures and the hearing children's involvement in verbal conversations. Levy-Shiff and Hoffman (ibid) state that there appeared to be an inverse correlation between social competence and hearing loss.

In a very similar study, Lindsay and Dickenson (1987) observed

the interactions of four hearing and four partially hearing children in an integrated nursery school setting. Partially hearing children spent more time interacting with adults and other hearing impaired children and a relatively small amount of time interacting with normal hearing children. The difficulty of whether the young hearing impaired child requires specialist language input at this stage, or whether placement with hearing children is appropriate is evident:

"Will functional integration be achieved more efficiently in the medium or long-term if the child is given very specific help, particularly in language development in the short term? And is this more effectively achieved in a more segregated and specialised setting?"  
(ibid p.6)

The rationale, which underpins much thinking on the concept of integration, of surrounding the young child with what is considered to be "normal" language may not be appropriate in some instances. However, specialised language input may be problematic: the training of nursery teachers and nursery nurses would not provide the specialised approach which would be necessary, and consideration would have to be given to the provision of concentrated, specialist support to the child and parents.

School entry may be the first occasion when a child encounters the stigma of his hearing loss. Stigmatisation is a form of society's reaction to these members who are "different" and studies of stigmatisation have been closely linked with the "labelling" perspective in the sociology of deviance. Lemert (1967) argues that deviance is the imposition of a definition or label on people by a particular group of others who may not approve of their attributes or behaviour.

"Stigmatisation describes a process of attaching visible signs of moral inferiority to persons, such as invidious labels, marks, brands or publicly disseminated information."  
(ibid p.42)

The handicapped are expected to "adjust" to and "accept" their handicaps, and, at the same time, to "deny" them by acting as normally as possible.

"While the stranger is present before us, evidence can arise of his possessing an attribute that makes him different from others in the category of persons available for him to be, and of a less desirable kind - in the extreme, a person who is quite thoroughly bad, or dangerous or weak. He is thus reduced in our minds from a whole or usual person to a tainted, discounted one. Such an attribute is a stigma, especially when its discrediting effect is very extensive: sometimes it is also called a failing, a shortcoming, a handicap. It constitutes a special discrepancy between virtual and actual social identity."

(Goffman 1963 p.2-3)

One of the main consequences of being stigmatised by society, claim Goffman (ibid) and Lemert (op.cit.) is the acceptance of a deviant self-image, an outcome consistent with the "looking-glass self" theory, when labelled individuals see themselves as society sees them as morally inferior persons.

Whether seen from the stance of an anti-integrationist or a pro-integrationist, the "deviancy" model, with its emphasis on identifying ways in which the hearing impaired population differs from the norm, ie. the normal hearing population, would seem to be totally inappropriate. Adopting an anti-integrationist view, Kyle (1985) states:

"The question then is simple: should a deaf child/person be considered in relation to their minority community membership or in relation to the inability to meet the normative requirements of the majority?"

p.138.

He argues that the view that deafness is a limiting factor affecting participation in society, not simply through its reduction of auditory input, but also by its serious effect on the acquisition of spoken language, can no longer be accepted. Given the right context, ie. through the use of sign language, the hearing impaired population can no longer be considered communication handicapped. It is not considered appropriate, within this present study, to discuss either the Total Communication debate or to develop further the anti-/pro-integrationist standpoints, but the reader is referred to a series of papers on the subject of integrating deaf persons into society (Montgomery 1981) and to a critique of the anti-integrationist position (Lynas 1984).

A more realistic and positive model where the emphasis is placed

on the conditions necessary for the development of a whole, integrated person would seem to be much more appropriate. Implicit in this model is that the basic needs of all (hearing and hearing impaired) are essentially similar. Schlesinger and Meadow (1972) in utilizing the developmental approach of Erikson (1968) comment on the way in which an individual child should be perceived in a developmental framework.

"Does the absence of early auditory stimulation, feedback and communication in itself create a propensity towards a particularly adaptive pattern? Or alternatively, does early profound deafness elicit particular responses from parents, teachers, siblings and peers that contribute to developmental problems. These are questions that are difficult to resolve in an either/or way, since the concomitants of organic deafness and the social expectations it arouses in others are intertwined from the very beginning. Rather than belabouring the nature/nurture controversy, it is more fruitful to look instead at the entire life cycle, examining instances of optimal and minimal adjustment and seeking out the antecedents, correlates and consequences of these patterns."

p.2-3.

As Lynas (1984) states,

"The aim of education is to expand the possibilities for people and not foreclose them."

p.135.

She cites her own research and that of Reich, Hambleton and Houldin (1977) and Hegarty, Pocklington and Lucas (1981), and this supports the claim of Darling (1979) in his counter argument against the deviancy model.

"Studies of the self-esteem of handicapped children and adults do not unconditionally support the suggestion of the labelling theorists that social stigma produces lack of self-acceptance and consequent maladjustment."

(ibid p.38)

Darling raises an important question. What determines various levels of self-esteem and adjustment in handicapped children, and, co-jointly, by what processes do some of these children overcome the effects of societal stigma while others succumb to its pressure? Many hearing impaired children and adults, despite their level of hearing loss, could be described thus:

"When one considers the obstacles faced by deaf individuals in their lives, the fact is that as a group they make up a well-adjusted, healthy, productive, stable, contributing segment of society."

(Moore 1978 p.152)

The social expectations of others described by Schlesinger and Meadow (1972) appear to be founded in negative attitudes. Chigier and Chigier (1970) describe how they believe negative attitudes to disability originate. They examined the cultural factors in Israel which influence attitude formation and suggest that a combination of three sources affects the significance attached to the presence of a disability. The first source would seem to be "conditioning" meaning what is learned about disability from parents, friends, media etc. The second source is exposure to the disability and the third source is positive teaching about the correct attitude to adopt towards the disability. The appropriate preparation of children in the mainstream class which is about to accept a hearing impaired child cannot therefore be minimised.

Studies which have supported the view that if non-handicapped students are exposed to handicapped students in ordinary school, this experience would result in more positive attitudes have been documented by Rapier et al. (1972), Sheare (1974) and Gottlieb (1980). However, other researchers found that exposure might result in negative attitudes. Gottlieb, Cohen and Goldstein (1974) and Westervelt and McKinney (1980) found that exposure resulted in no change of attitude to that held previously. In research studies where exposure and information were available, positive attitudinal changes were recorded (Lazar, Gensley and Orpet 1971, Handlers and Austin 1980, and Jones et al. 1981). These research studies are documented in a comprehensive review of the literature concerning positive peer group facilitation undertaken by Horne (1982).

The negative values associated with a hearing loss are also discussed by Meyerson (1967). He considers the negative values in three ways:-

1. those imposed by society.
2. those imposed by the person himself.
3. those imposed by the disability.

The negative values imposed by society may be that once he is labelled

as "deaf" the child may acquire special modes of communication and forms of language expression which are markedly different from those acquired by the normal hearing child. If the child is educated with other "deaf" children the differences may be aggravated. The negative values imposed by the child himself originate from the regard in which he is held by those whom he regards as significant others. Many parents provide a rather controlled and restricted home environment for their child, sometimes perhaps from necessity. The child may react in a very passive way to the world, might not take responsibility for his own behaviour developing an external locus of control or what has been defined as "learned helplessness". This is characterised, not only by an external locus of control and dependency, but also by underachievement and reduced performance (McCrone 1979). The negative values imposed by the hearing loss may be created because of the child's inability to reach simple goals and to communicate easily. This may lead to over-dependence and acceptance from others of a lowered status. Difficulties in receptive or expressive language may cause great constraints on interaction between children. The hearing impaired child may appear normal. ie. no visible signs of handicap, but, whenever he begins to interact, his impairment immediately intrudes into the interactional context.

In reviewing the literature concerning the psycho-social status of hearing impaired children, research results must be viewed with caution. Firstly, tests used were designed specifically for the normal hearing population and contain both language and situational complexities outside the experience of a hearing impaired child. Secondly, results are very heavily dependent on local conditions such as the socio/economic and educational background of the child and the availability of parent and teacher support services. It appears that, although the hearing loss, per se, may increase the likelihood of negative psycho-social behaviours and adjustments, these behaviours are not pre-ordained and are not inevitable.

Certain behaviour problems attributed to hearing impaired children have been documented by researchers.

"Psychologically, the most frequently stated conclusion about deaf individuals is that they seem to reflect a high degree of emotional immaturity."

(Schlesinger and Meadow 1972 p.2)

Levine (1960) commented on the emotional immaturity, personality constriction and deficient emotional adaptability of the group of hearing impaired children she studied. Deaf pre-school children were described (Chess, Korn and Fernandez 1971) as being immature, impulsive and less autonomous than their hearing peers. However, their sample population were a group of two hundred and forty-three Rubella children, many of whom had multiple handicaps. Doll (1953) defined social maturity as the ability to take care of one's self and to assist in the care of others - the functional status or adaptive behaviour of an individual. The Vineland Social Maturity Scale measures the appropriateness of behaviour for particular ages and stages of development. A study using this scale examined the social maturity of deaf children across different age ranges (Myklebust 1960). His results suggested that a discrepancy in social maturity between hearing and hearing impaired children increased with age, concluding that the increasing gap could be attributed to the knowledge and use of language. However, it could also be attributed to child rearing practices and parental attitudes eg. overprotectiveness.

Comment has been made in another part of this study on the incidence of children in ordinary schools suffering from fluctuating hearing loss or mild conductive deafness. These children have been described as dull, lazy, inattentive, daydreaming, naughty (Hamilton 1972, Brooks 1977). Many teachers would be ready to fit a number of children in their classes into one or more of these categories. It is unfortunate that some, or indeed, many of these teachers would go no further, thus denying treatment and exacerbating linguistic impoverishment. Broomfield (1969) maintained that the anxiety shown by children with a mild hearing loss exceeded that of profoundly deaf children, because they are aware of their failings and difficulties, and, therefore, may indulge in compensatory behaviour eg. fidgeting. Obviously, consideration must be given to the difficulty of defining what is seen as a behaviour problem. Certain behaviour may be acceptable to one teacher and totally unacceptable to another, but a general view of emotional immaturity and deficient emotional adaptability seems to emerge.

As has been stated previously, the appropriateness of tests used to assess the social adjustment of hearing impaired children is open to question. Using the B.S.A.G., Fisher (1964), Hine (1971) and Ives

(1972) found that hearing impaired children were less well adjusted than their normal hearing peer group. Fisher (op.cit.) studied eighty-three partially hearing children in Lancashire who were integrated into the mainstream, and of those, he claimed 25% were maladjusted, 27% were unsettled and 48% were quasi-stable, the lower the score the better adjusted the respondent (quasi-stable 0 - 9, unsettled 10 - 19, maladjusted 20+). In his research Hine (op.cit.) claimed that there were more maladjusted children in the partially hearing school population than one would expect to find in the normally hearing population, stating data of 20% maladjusted, 36% unsettled and 44% quasi-stable. Hine argued that maladjustment was brought about largely by hearing handicap. These two studies and that of Ives (1972) used the first edition of B.S.A.G. (Stott 1963) with Ives achieving data 18.3% maladjusted, 25% unsettled and 56.7% quasi-stable. One of the difficulties in scoring the B.S.A.G. test is that two teachers may see very different aspects of the same child and may therefore mark different items on the Guide. Using the fourth edition of B.S.A.G. (Stott 1971), Ives (1974) obtained different results. This edition was devised to distinguish between under and over-reactive behaviour. (UNRACT/OVRACT) The hearing impaired children tended to show a lower incidence of UNRACT behaviour, but a higher incidence of OVRACT behaviour. Ives (ibid) postulated that this result reflected the general orectic immaturity of hearing impaired children.

Certain items on the B.S.A.G. are argued by Aplin (1985) to be of dubious value.

"items - 'hails teacher loudly' and 'difficult to get a word out of him' pose problems of interpretation for the hearing impaired child."

p.86.

In her research Aplin (ibid) found that 19.7% of the children were maladjusted using B.S.A.G. However, using the Rutter Child Behaviour Questionnaire, 36.1% of the sixty-one children who had been previously tested on B.S.A.G. were considered to be maladjusted. Items on the R.C.B.Q. were queried by the researcher eg. "often tells lies". She suggests that, in some instances, the child may fail to understand complex oral communications and may appear to be lying. In paper/pencil tests many children may simply fail to understand the question and this

was possibly the case in the research undertaken by Vegeley and Elliott (1968) using the California Test of Personality. Lower adjustment scores were obtained for the group of hearing impaired children and it was maintained that this could not be due to the test. However, twenty out of the fifty-three children sampled had diagnosed learning difficulties. Indeed, Rudner (1978) identified several linguistic structures which biased items against hearing impaired children on this particular test. Garrison, Tesch and Decaro (in Garrison and Tesch 1978) analysed what they called "idiosyncratic" interpretations of many items on the Tennessee Self Concept Scale which were made by hearing impaired children. In an interesting study using the Personal Construct theory with hearing impaired adolescents (Macdonald 1980), the qualitative analysis of the results suggests that the sample tended to respond with a disproportionately high number of constructs concerned with how people treat them. Whether this is a genuine response or whether it is linguistically biased is not clear. The question must be posed in all these studies as to how much responses are due to linguistic handicap, or to actual self perceptions, and how much they are due to the structure of the social situation?

Some researchers have sought to establish a link between the degree of hearing loss and maladjustment. Fundudis, Kolvin and Garside (1979), using the Rutter Children's Behaviour Questionnaire, indicated a relationship between behaviour and degree of hearing loss, but added a note of caution:

"While the hearing of the profoundly deaf was significantly poorer than that of the partially hearing, transfer to a school for the profoundly deaf could occasionally have been influenced by social and behavioural criteria in the small number of marginal cases who could have easily fallen into either of the two deaf groups. Nevertheless, we do not consider that there are sufficient of these cases to produce differences of this magnitude; most of the differences are likely to be determined by the severity of deafness itself."

p.183.

This relationship between degree of hearing loss and maladjusted behaviour had not been substantiated by the research of Bowyer and Gillies (1972) who had found no link between the two. However, these researchers had employed a much more subjective approach of teacher evaluation in two particular areas, the ability to get on with other

children and the ability to get on with adults. Again, Broomfield's research (1969) does not equate with that of Fundudis, Kolvin and Garside (1979). Children with mild hearing loss exhibited more anxiety in the form of compensatory behaviour because they were aware of their difficulties and failings.

One particular piece of research which was undertaken by Rodda (1970), using the B.S.A.G. claimed that only 11.7% of the sample of hearing impaired children could be said to be maladjusted (cf. Fisher (1964) 25%, Hine (1971) 20%, and Ives (1972) 18.3%). Rodda also established that there was a higher prevalence of maladjustment within his sample of those children from social classes III, IV and V, and that there was a higher percentage of girls 12.8%, compared with boys 10.6%. Fisher (op.cit.) and Hine (op.cit.) had found that partially hearing girls with high maladjusted scores were as common as, but not more than, partially hearing boys. In a study undertaken by Lynas (1986), interviews with forty-five teachers were analysed. Of the fifty children discussed, only five were considered to be naughty or disruptive. Teachers were generally very positive and commented on the good behaviour of the hearing impaired children. Lynas states, that through these interviews and her personal observation, the emotional disturbance associated with hearing impairment by many researchers did not manifest itself in this instance.

In what was considered to be a subjective study undertaken by Wheeler and Arnold (1982), the views of teachers concerning the personality, social and emotional adjustment and school performance of hearing impaired pupils in their Units, and when integrated into the mainstream, were sought by means of a questionnaire. A contrast to the traditional view of being less well adjusted which had been obtained in other research by standardised personality and adjustment tests was apparent: pupils were thought to be well adjusted, but lacking in confidence. However, the subjectivity of the test would seem to be in need of evaluation: teachers were asked to comment on individual stereotypes of behaviour held to be associated with hearing impairment and this could lead to some contamination of the test. Also there is an element of personal bias to be considered: would Unit teachers who were pro-integration, rate their pupils more favourably when in mainstream or vice-versa? Van den Horst (1971) compared children with partial hearing losses who were in ordinary or special units with a normal hearing

control group. Using the North York Self Concept Scale he found little difference amongst the partially hearing groups whether they were fully integrated or receiving peripatetic help, but the partially hearing groups tended to be less well adjusted than the controls. He concluded that social maladjustment arose from the handicap to language and communication which the hearing loss produces and also from the misunderstandings of parents and teachers of the actual effects of such a loss, an obvious example of the vital need of an adequate support service for parents, teacher and child. Farrugia and Austin (1980) found that partially hearing children integrated into the mainstream had poorer self concepts than pupils who remained in special schools. Lynas (1986) commenting on their research, states:

"They infer from their study that deaf children in the "normal" community are continually measuring themselves against others and are perpetually troubled by their failure to be equal to the normally hearing."

p. 37.

One of the primary aims of any integration programme must be the acceptance of the hearing impaired child by his peer group, thus developing interaction and social skills. Brill (1975) expressed grave concern that problems of communication will hamper social interaction between hearing impaired and normal hearing children and this is the salient point which must be considered. Numerous sociometric studies of hearing impaired children indicate that they are less socially accepted than their peer group in ordinary classes. Justman and Maskowitz (1957) investigated the peer group relationships of ten hearing impaired children who were integrated with twenty-five normal hearing children. The hearing impaired children attended school only part-time. After six months the researchers claimed that the hearing impaired children were not any better accepted than they had been at the beginning of the programme, concluding that reactions towards a hearing impaired child are likely to be negative or neutral rather than positive. The validity of the conclusions must be questioned; such a large group of hearing impaired children would constitute a large sub-group within the class group and would therefore integrate within their own sub-group, having no necessity to do so with the other children. The relatively short space of time between tests and part-time attendance would also have had some effect on their findings.

Force (1956) discovered that the more visible the handicap the more rejected the child would be. Thus, a child with a hearing aid would be reduced in social status. Using sociometric tests, Force found that hearing impaired children were chosen less often as playmates than all handicapped children other than children with cerebral palsy. In contrast, Shears and Jensema (1969) concluded that when a handicap is visible eg. a child wears a hearing aid, awkwardness may actually be reduced in the interaction process with the normal hearing child accommodating to the needs of the hearing impaired child. Similar results had been found by Elser (1959) who evaluated the social status of forty-five hearing impaired children. The forty-five children were divided into two groups: those with hearing losses 50 dB who did not wear their hearing aids full-time, and the other group, hearing losses 50 - 79 dB, wearing hearing aids all the time. None of the hearing impaired children were as well accepted as their hearing class mates. However the children without hearing aids were significantly less well accepted than those wearing aids. Thus, more severely handicapped children were more accepted, again possibly the accommodation of other children to their needs.

In a study begun in 1974, McCauley, Bruininks and Kennedy reported a higher level of acceptance by the peer group than had been reported in other research. Over a three year period the social acceptance of fifteen hearing impaired children was examined. These children received a high degree of social acceptance, and were also as perceptive as hearing children in estimating their relative status. Overall there were no significant differences in the number of positive and negative interactions, although hearing children tended to engage in more verbal interactions and hearing impaired children tended to engage in more non-verbal interactions. However, hearing impaired children relied to a much greater degree on interaction with their teachers. This could possibly explain some of the degree of their acceptance by other children, the teacher being seen as a good model and also making the children aware of the hearing impaired child's needs. These findings were replicated in the research of Petersen and Haralnick (1977). These studies and that of Rister (1975) would indicate that the degree of hearing loss is not equated with the ability to function in an integrated class, but there are certain trends which have implications for teachers. Hearing impaired children interacted better with a small

group of hearing children and there was significantly more verbal interaction with teachers than between teachers and normal hearing children. Research undertaken by Hemmings (1972) and Dale (1978) suggests that the ideal would be to integrate only one hearing impaired child into a mainstream class. Eyre and Hall (1983) state that if social integration is a major aim, then individual placement is most appropriate. Where two or more hearing impaired children are integrated, then interaction with the peer group of normally hearing children is usually much less (Appendix 1). The possibility of over-dependence on the teacher of the hearing impaired child must also be considered. Antia (1982) found that normal hearing children had significantly more interactions with peers than hearing impaired children did, but that hearing impaired children interacted much more with their teachers, particularly if they were in partially hearing units.

Lynas (1986), citing the research of Hemmings (1972) and Cameron (1979), claims:

"Whilst the research findings cited above tend to indicate that the quality of interaction between hearing impaired and normally hearing children in ordinary schools is not quite as good as that between pupils generally, the evidence, particularly the more recent evidence, suggests that usually the relationships between the two groups are satisfactory."

p.57

The more recent evidence to which Lynas refers is the study of Hegarty, Pocklington with Lucas (1981) into the integration of several handicapped children into ordinary schools, but not necessarily hearing impaired children. The definition of "satisfactory" (Lynas op.cit.) merits closer examination. Gregory and Bishop (1989), in their study of twelve children individually placed in ordinary schools, investigated three assumptions concerning integration, that social integration is enhanced, that children are provided with a 'normal' language environment, and that access to the wider curriculum which the peer group experiences is available. Their results indicate how vital it is not to assume that the mere act of placing a hearing impaired child in an ordinary school alongside his hearing peer group, will, per se, realise either his social or academic potential:

"Furthermore, within the classroom, despite the attempt of the teachers, the deaf child's problems in communication meant he or she was seen as different, was singled out within group interaction. The second goal of integration is to provide deaf children with normal language. Clearly in the mainstream school the child is exposed to normal language, in that he or she is there while normal language is being used. However, both quantitatively from statistical analysis of classroom conversation - and qualitatively from examination of transcripts of communication difficulties, we have indicated that there was not straightforward access to 'normal' language. In terms of the third goal, the promise of a wider curriculum, it seems that often the deaf child has not the competence in spoken language to benefit from the orally presented curriculum of the mainstream schools.

(ibid p.6)

It has been argued in the review of the literature that sociometric tests, standardised on a hearing population, are not appropriate in assessing the social adjustment of the hearing impaired child, yet subjective testing may be equally as problematic. Whatever the method of evaluation, it is quite apparent that a hearing impaired child's capability in social functioning does not just happen: the development of a positive self-concept, social adjustment and adaptation, and the growth of social and interactional skills will depend very largely on the attitudes and practices of those whom the hearing impaired child recognises as significant, ie. his parents and teachers. This is of course true for all children, but it would seem that the communication difficulties which the child faces increase the problem, and that mere placement in an ordinary classroom may, in fact, make him more isolated and segregated. A much closer analysis of what actually happens in classrooms needs to be undertaken to appreciate the complex and often subtle interactions which take place in integration programmes. Certainly a very important variable appears to be the view of the hearing impaired child which is adopted by his parents and teacher and it these issues which will be highlighted in the personal investigation.

PART B

THE INVESTIGATION

SECTION ONE

DESIGN OF THE STUDY

## AIM

The aim of the study was to seek evidence regarding issues which had been raised in the review of the pertinent literature from illustrative examples of the responses made by the parents and teachers of the hearing impaired children in the sample. It is believed that the following issues, amongst others, might be highlighted in the responses of those considered to be the reference set of the sample.

1. The perceptions of the child by parents and teacher, particularly in the aspects of how the child functions, both educationally and socially, in the classroom setting.
2. The awareness of parents and teachers of the implications of hearing impairment.
3. The degree of accommodation of the teacher towards the hearing impaired child.

## THE RESEARCH DESIGN AND FOCUS OF THE STUDY

This was intended to be essentially a qualitative study. Quantitative research methods were seen as irrelevant, since test instruments, norm referenced to hearing children, were considered inappropriate. This decision was based not only on the evidence available in the literature (Conrad 1979, Salvia and Ysseldyke 1974), but also on the assumption that, since all but one of the target children had been statemented, they were already the subject of sensitive profiling techniques by their teachers, particularly during Annual Review procedures. There was also low emphasis placed upon the actual level of hearing impairment since the degree of handicap was not considered to be the most significant influence in teacher/pupil interaction. Consideration was given to the following factors.

### 1. PARENTS' AND TEACHERS' ATTITUDES TOWARDS HEARING IMPAIRMENT

The attitudes of parents and teachers towards hearing impairment are recognised as crucial (Part A, Sections 2 and 3), and these are thought to have a significant effect on how the child is viewed, involving not only the degree of understanding of the implications of

hearing impairment, but also whether the hearing loss, per se, is seen to be the most important contributing factor to the child's functional level. In order to tap these attitudes, interviews were conducted with parents and teachers of the children involved in the study. Prompt questions were used to focus interviewees on specific issues concerning integration (Appendices 2 and 3). The interviews were taped, the pause button being managed by the interviewee in each case so that if a question were posed which they preferred not to answer, then this option was available to them. None of the interviewees used this option. The interviews were subsequently transcribed.

## 2. TEACHER EVALUATIONS OF THE CHILD'S ATTAINMENT AND SOCIAL ADJUSTMENT

It was felt that teachers would view the hearing impaired child as an individual and would consider his level of functioning in relation to the peer group, with whom he worked and played. However, there was explicit rejection of the use of narrow, and possibly inappropriate assessment procedures, since it was thought that teachers react to children as individuals, and any result obtained on a norm-referenced test would not interfere necessarily with the significance of teacher/child interactions, which are seen as critical to the child's performance and his levels of attainment and adjustment. The subjectivity of the responses was recognised, but this was considered, nevertheless, to be an important factor and one which could make a significant contribution to the child's performance. A questionnaire was designed to elicit certain factual information from the teacher concerning the child's circumstances (Appendix 4). Using a Likert type scale, the teacher was also asked to rate the hearing impaired child, compared to his hearing peer group, on certain variables of attainment and social adjustment. Audiograms for each child are included, (Appendix 5) but, although these were available to each teacher, it was considered that the teacher's perceptions of hearing impairment were more important and more effective than knowledge of the actual degree of hearing loss as indicated on an audiogram. The teacher's understanding of the implications of the type and degree of hearing impairment was seen to be a critical variable in the classroom setting.

### 3. THE BEHAVIOUR OF THE TEACHER TOWARDS THE CHILD

It was considered that the teacher's behaviour towards the child might not be the result of specific expertise in the handling of a child with a hearing impairment, but might be strongly linked to the teacher's philosophy about all children, and to her attitude towards a child who had been deemed to have special educational needs. It was thought appropriate to attempt to evaluate whether the teacher behaved towards the child in the ways in which she thought she did. As this study concerned individual children in individual settings, it was felt that systematic observation schedules would constrain the observer and would themselves be affected by the presence of too many variables eg. the difference in the individual settings and the nature of the interaction therein. In a small class with a ratio of 1:15, the number of interactions could be considerably greater than in a class with a ratio of 1:30. The use of systematic observation techniques was therefore deemed to be inappropriate. Informal observation to gain a 'feel' of teacher to child behaviour was considered more appropriate, since it offered greater flexibility, and observations of practice could subsequently be linked to statements made by the teacher in interview.

### 4. SELECTION OF THE SAMPLE

The study was undertaken with an opportunity sample of five boys (\*) who had been selected from the case load of a peripatetic teacher for hearing impaired children on the following criteria:-

1. They were all hearing impaired children integrated into ordinary primary schools.
2. They had all been issued with a radio aid.
3. The sample covered the age range 6 years 11 months to 11 years 0 months. This range was considered important in the attempt to evaluate, whether, at any particular stage, parents' level of anxiety appeared to increase.

(\*)NOTE: the fact that the sample were all boys was incidental.

## 5. THE SAMPLE

The five subjects of the case studies are:

David	age	6 years	11 months
John	age	8 years	6 months
Mark	age	10 years	7 months
Philip	age	10 years	10 months
Simon	age	11 years	0 months

Using the BATOD definitions (1981), three of the boys, Mark, Philip and Simon could be described as severely hearing impaired, with John and David being described as moderately hearing impaired. Philip, Simon and David have prelingual hearing losses ie. a permanent hearing loss which occurred before the age of 18 months. All five boys have sensori-neural losses: in the case of John and Mark, the losses are deteriorating. The most recent available audiograms for each boy are included (Appendix 5), but it is suggested strongly that much more important factors are influential in the teacher's perceptions and behaviour towards the child, and, as the literature indicates, (Hodgson, Clunies-Ross and Hegarty 1984 p.151) audiometric deafness does not indicate the child's ability to function within the classroom. Certainly for John and Mark, these audiograms do not indicate their hearing loss at the present time, since both of them are dated at least eight months before the field work commenced.

With the exception of John, all the subjects are statemented children, and they have all been issued with radio aids. They are all full-time pupils in ordinary primary schools except Mark, who, for the past ten months, has attended the Hearing Impaired Unit for morning sessions and his local primary school for afternoon sessions. This Unit was attended by both Philip and Simon on a part-time basis prior to their admission into school at the age of five years. Further personal relevant information is discussed later in the study.

Of the teachers involved, three had more than twenty years' teaching experience, one had between sixteen and twenty years and the other between eleven and fifteen years. Two of the longest serving teachers were Headteachers, the other being a Deputy Headteacher. The remaining two teachers were also Deputy Headteachers. None of the sample indicated that they had any training, either in their Initial

Teachers Training Course or in In-Service Training, which was specific to hearing impairment.

## 6. THE FIELD WORK

### Phase 1

The subjects were selected, with the help of the peripatetic teacher for hearing impaired children, on the basis of the criteria outlined above. The parents, and the Headteachers of the schools which the subjects attended, were approached for their permission for the investigation. Parents and class teachers were asked whether they would be prepared to participate in the study. All Headteachers and teachers agreed to the investigation. It was interesting to note the reaction of the parents to their being asked to participate. Three sets of parents were very positive, expressing great enthusiasm and appreciation of the interest shown in their children. One set of parents was willing to participate, but did not indicate positive interest. The fifth set of parents, although giving permission for their child to be observed, declined to be interviewed, stating they were too busy etc. These parents were already well known to the interviewer, and it was appreciated that they were under significant personal stress at the time, since they were in some dispute over the future placement of their son. Therefore, the request for interview was not pursued. In the end, two mothers and two sets of parents were interviewed.

### Phase 2

The teacher questionnaire was designed (Appendix 4) and the prompt questions for parents and teachers were devised. (Appendices 2 and 3) Visits were made to the schools to observe the subjects in the school environment. Teacher/child interaction was observed as well as child/peer group interaction. Interactions were observed in a qualitative manner and particular note was made of the degree of accommodation which teachers appeared to show to their hearing impaired pupils. A difficulty which was inherent in the design of the study was that teachers were aware, during the observation session, of the observer's interest in the hearing impaired child. This may have created a 'Hawthorne' effect (\*), altering the behaviour of the teacher towards the child. In one case, the child had been told by the teacher

that the observer was coming to see how well he was doing in class. There were also problems in gaining access to suitable opportunities for classroom observation. A sample of each child's personal writing was obtained. (Appendix 6)

(\* NOTE: The 'Hawthorne' effect occurs when the very presence of the researcher becomes a variable within the situation which the researcher is investigating.

### Phase 3

Each class teacher was interviewed, using identical prompt questions, unless there was a need for the interviewer to follow up on a previous point to gain further insight. Interviews lasted approximately 30 - 45 minutes and were then transcribed. Questionnaires were completed by each teacher and the ratings ascribed by the teacher on the educational attainment and social adjustment of the child were charted. (Appendix 7)

### Phase 4

Each parent/set of parents was interviewed in their own home, Interviews with parents lasted approximately 45 - 60 minutes, although two sets of parents, in particular, discussed issues concerning integration after the interview had finished and, unfortunately, after the tape recorder had been switched off.

### Phase 5

The peripatetic teacher for hearing impaired children, from whose caseload the subjects had been selected was interviewed. Her perceptions of issues concerning integration were sought. She was asked to comment on the educational implications for each child of the hearing loss, and on her opinion of parental and teacher attitudes.

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The sample was a small biased sample, and cannot be considered as representative of hearing impaired children in ordinary schools. It was not intended to be so. Accepted research designs are not necessarily applicable to a study of this nature. What the study attempted to achieve was to embellish the review of the literature with illustrative material which might indicate certain implications for teachers of the integration of a hearing impaired child in their class.

SECTION TWO

THE INVESTIGATION AND DISCUSSION OF ISSUES

The premise of this study is that where a hearing impaired child appears to be able to function on a par with his hearing peers, he will be viewed by his parents and teacher firstly, as a child, and secondly, as a hearing impaired child. This is not to say that the hearing impairment will not impinge upon the response made by the child's reference set, but that normal expectations in communication and social competence will have been established. The perceptions of the child by his parents are seen as crucial (Ross 1978, Darling 1979) and these will have been shaped by the degree to which parents have been able to come to terms with their child's hearing loss. Parental perceptions will, to some extent, affect how the child is viewed by his teacher, and negative or unrealistic parental expectations may produce a comparable response from the teacher.

"Too frequently the handicap has been the facet of the child's life by which he has become known to his teachers, his friends and even to his parents."

(Thomas in Loring and Burn 1975 p.135)

Before discussing the issues which are highlighted by the parents and teachers in the study, it is considered appropriate to provide some background information on each child, so that these responses might be set in context. The information regarding degree and type of hearing loss for each child has been obtained from the peripatetic teacher for hearing impaired children who is responsible for their supervision. Although audiograms for each child have been included, it must be stressed that a pure-tone audiogram is not seen as an indicator of a child's ability to function effectively in the ordinary classroom. (Sanders in Nix 1976, Hodgson, Clunies-Ross and Hegarty 1984). For most teachers operating in ordinary classrooms an audiogram would have little meaning, and certainly, some of the teachers in the study, although they had seen the audiogram, did not always appear to understand the implications of their pupil's hearing loss. It is these implications of the hearing loss, the understanding and the response to them, which are so vital.

DAVID

David was diagnosed, as the age of nine months, as suffering from a sensori-neural hearing loss. His audiogram (Fig. 1) indicates that his hearing loss is worse in lower frequencies, but improves in the higher frequencies, although this is rather variable. The implication of this type of hearing loss is that David can use his residual hearing to rather better advantage than the other subjects, with better consonantal discrimination. This is reflected in his speech and language. The possible aetiology of his hearing loss is described as genetic by his parents, and, cause unknown, but possibly Rubella, by the peripatetic teacher for hearing impaired children who has known David since diagnosis. He also suffers from eye and balance problems and has various allergies and dietary difficulties. He attends the Speech Therapy clinic approximately once every three weeks.

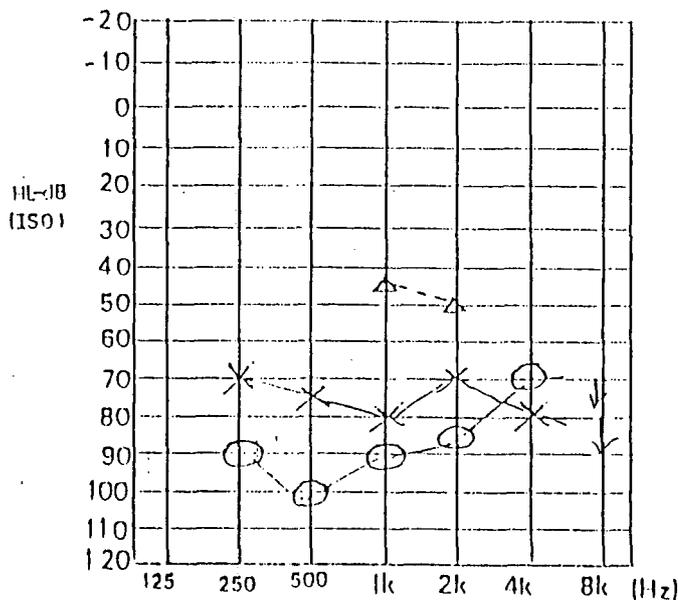


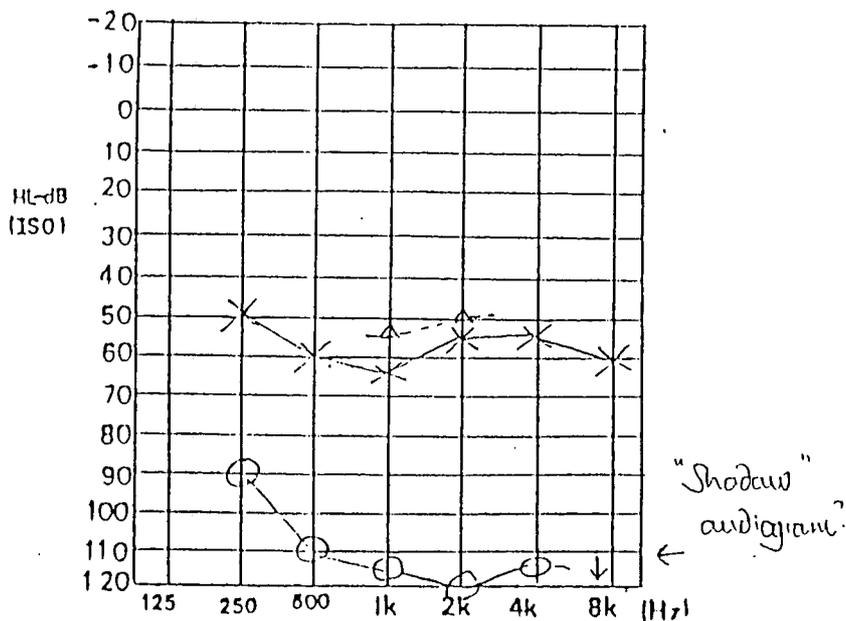
Fig. 1

David is the youngest child in the family with two elder sisters. He attended a nursery class attached to a large primary school, but upon school entry, he was placed in the Infant class of a small (two teacher) school. At the time, this was approximately twelve miles from his home, but subsequently his parents moved house and he now travels about four miles to school. His elder sister attends the same school which is not

their local primary school. He has been taught by the same teacher since his entry into school, and he has also received support for approximately one hour per week from the peripatetic teacher of hearing impaired children. David's father is self-employed, and his mother is a part-time teacher as well as helping in the family business.

JOHN

John was diagnosed, at the age of approximately four years, as having a sensori-neural loss. John had been referred to a speech therapist for his deviant speech patterns at about three years of age, and it was then discovered that this was the result of impaired hearing, although he had previously 'passed' routine screening tests. Initially he had grommets inserted, but these were ineffective, and he came to the attention of the Hearing Impaired Service at about the age of six years. His hearing loss is a gradually deteriorating loss, such that the hearing in his right ear significantly deteriorated when he was seven and this is evident from his audiogram. (Fig. 2)



(Fig. 2)

In his left ear, John's hearing loss is fairly evenly distributed across the frequencies with useful residual hearing. However, the implications

of any further deterioration in the left ear are quite appalling. There is apparently no known cause for the hearing loss.

John is the second eldest boy in a family of four children, an older brother having been accidentally killed. He attends his local primary school which has approximately one hundred pupils, and John is in a mixed class of twenty-seven first and second year junior children. He receives support from the peripatetic teacher of hearing impaired children for approximately thirty minutes per week. John's father is a farmer, his mother a housewife, and the family live on a farm about three miles from the nearest village, where John attends school.

### MARK

Mark is a very severely hearing impaired child in the group. He was diagnosed, at the age of four years, as having a deteriorating sensori-neural loss. His audiogram (Fig. 3) indicates that in the very low frequencies his hearing is relatively normal, but he exhibits a typical ski-slope loss in both ears, having very little hearing in the other frequencies.

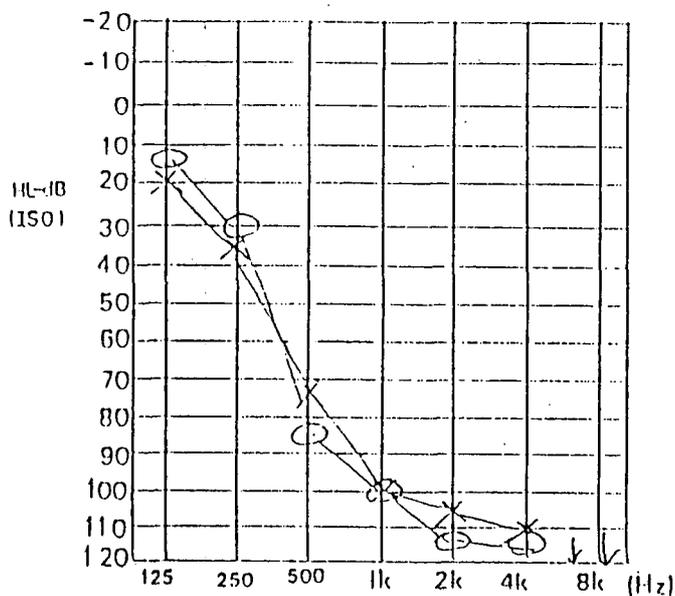


Fig. 3

Mark has ~~some~~ useful residual hearing and the deterioration in his

hearing, coupled with apparent difficulties in the school situation, alerted everyone to the fact that he required extra help over and above that which could be provided in his ordinary school. He now attends the Hearing Impaired Unit for morning sessions and his local primary school for afternoon sessions. His hearing loss is of inherited genetic aetiology. This impairment appears to reveal itself in every second generation. Children of that generation tend to be born with normal hearing which deteriorates quite rapidly so that, by the age of ten, they are profoundly deaf children.

Mark is the younger child in the family, having an elder sister who is ten years older than he is, and who is also hearing impaired. Mark and his sister both have a deformity of the bone structure of the jaw which involves considerable orthodontic treatment. Mark lives on a farm which is about two miles from the nearest village. His father is a farmer and his mother, a housewife, is a very active member of the National Deaf Children's Society.

SIMON

Simon was diagnosed, at the age of fourteen months, as suffering from a bilateral sensori-neural loss, as is evident from his audiogram (Fig. 4)

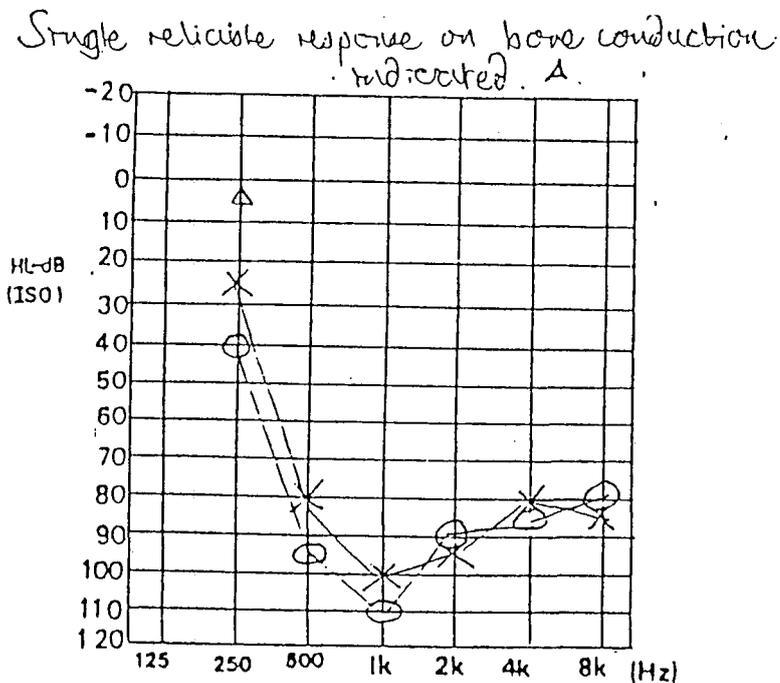


Fig. 4



He has very useful hearing in the lower frequencies which deteriorates rapidly in the middle frequencies with a slight improvement in the higher frequencies. This means that Simon receives distorted speech patterns, particularly for consonants. However, because of early use of hearing aids and good use of residual hearing, Simon could pass superficially as a hearing child.

Simon has a younger sister, who suffers, intermittently, from fluctuating hearing loss. On entry into school, Simon attended a nearby village school (not his local school) for five years. However owing to a falling roll situation, the school was closed and Simon transferred to a small school (52 pupils) in a nearby town. Simon is in a class of seventeen third and fourth year junior children, whereas he had been previously in a very small school of only nine children. Support from the peripatetic teacher for hearing impaired children is received for about one hour per week. Simon's present school was chosen because it meant that he would be able to transfer from there with his peer group to a small two form entry comprehensive school about ten miles from his home. This is not his local comprehensive school. Simon's parents are both teachers.

PHILIP

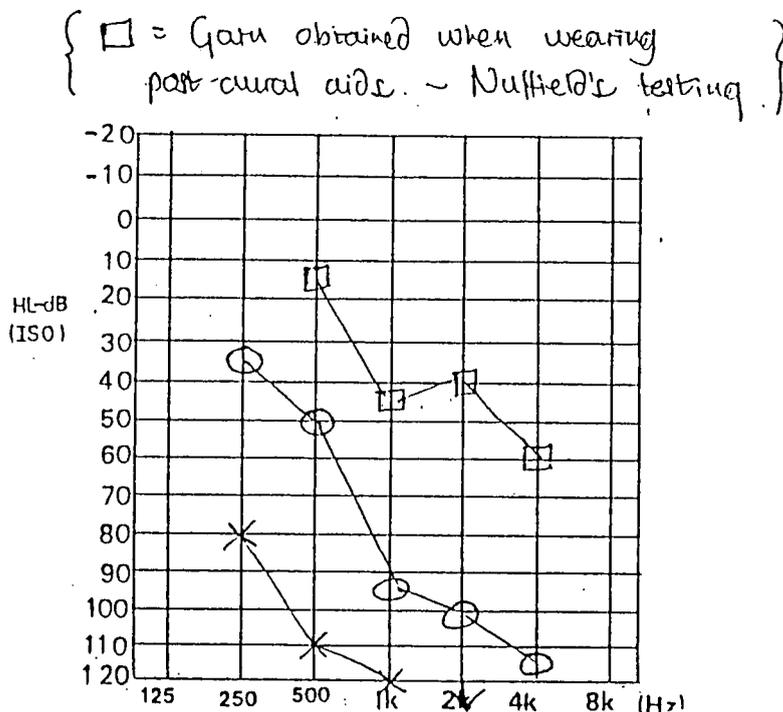


Fig. 5

Philip was diagnosed at the age of 2½ years as having a sensori-neural loss in both ears. The cause of this is unknown, but may possibly have been due to a viral infection at the age of one year. As can be seen from his audiogram (Fig. 5), Philip exhibits, in his right ear, a typical ski-slope loss of approximately 30 dB at very low frequencies to approximately 110 dB at very high frequencies. He has useful low frequency residual hearing in this ear. In his left ear he has a profound hearing loss, so that his useful residual hearing is in his right ear. He has a very imperfect reception of speech. However, early use of hearing aids and his very good use of residual hearing help Philip to appear less hearing impaired than he actually is.

Philip is the youngest child in the family, having two elder brothers who are no longer in full-time education. When he was nearly five, he was admitted to a small primary school, (approximately 70 children) which was about four miles from his home, since his local school was unwilling to admit him. Philip's school has a falling roll situation and there are now 35 pupils. Philip is in a class of 22 children, age range 7 - 11 years, but his first Infant class, in which he spent two years, had only 12 children. Philip receives support from the peripatetic teacher of hearing impaired children for approximately one hour per week. At the time of the study, it is believed that Philip's father was not at work as he was suffering from a stress-related illness, and his mother was working in a shop and as a cleaner.

PERCEPTIONS OF PARENTS AND TEACHERS AND THEIR RESPONSES TO THE  
INDIVIDUAL CHILD

The fact that some hearing impaired children achieve as well as their hearing peers (Dale 1984, Reich et al.1977, Rister 1975, Lynas 1986) would seem to indicate that the quality of the environment and the interaction therein are important variables which affect the functional ability of the child. The problem lies not so much within the child, but without. As one parent commented,

"The impression that we have had, certainly up to now, is that the problem is not his hearing, his lack of hearing, but that we can't make ourselves understood. He gives the impression that it's almost our fault that we can't make him understand and that's where problems arise and he gets cross. He sort of puts it on to us almost."

(David's father Appendix 8 p.24)

Before the study was undertaken, it was thought that the following issues might be highlighted by the responses of parents and teachers of the hearing impaired children in the sample, and also by the observations made in the classroom situation which were undertaken purely to gain a 'feel' of the child in his integrated setting.

1. The beliefs held by parents of the implications of hearing impairment, and their responses made to the impairment.
2. The perceptions of the child by parents and teacher, particularly in the aspects of how the child functions, both educationally and socially, in the classroom setting.
3. The degree of accommodation of the teacher towards the hearing impaired child.

The transcripts of the interviews conducted with parents and teachers are to be found in Appendices 8 - 16, and that of the peripatetic teacher for hearing impaired children in Appendix 17.

NOTE: Philip's parents declined to be interviewed. Their reluctance was very interesting in that they had known the interviewer closely for a period of five years, but the obvious stress which they were experiencing over personal matters and through the uncertainty of secondary placement for Philip outweighed their willingness to discuss him. Anderson (1973) stressed the necessity of involving parents in discussion about placement at an early stage. Although Philip's parents

had been involved from an early date, they were in dispute with the teacher for hearing impaired children as to the best placement.

"There was an area of difficulty when we were discussing Philip's future. The peripatetic teacher wanted him to go to one particular secondary school, and the parents objected very strongly on the grounds that he wouldn't know any children there, and the distance, especially in winter. And I had to sort of negotiate between the two of them and try to make each of them see the other's point of view, which actually was very difficult."

(Philip's teacher Appendix 14 p.106)

The fact that the grieving process which parents undergo after their child's diagnosis is not a one-off occurrence, but will re-occur at different stages of the child's life (Moses in Powell et al. 1985, Luterman 1987) may be very relevant at this stage for Philip's parents. Indeed, the peripatetic teacher of hearing impaired children suggested:

"Very few people don't go through these stages, but one particular reaction, I've seen, was that the parents did not seem to go through any stages, any of the grieving processes..... That's a very unusual reaction, and those parents did not seem to go through any grieving process. I think it has told on them later. I think the fact that they didn't do it earlier, they are now doing it later. That's the basis of their present problems."

(P. Teacher Appendix 17 p.151)

#### THE PERCEPTIONS OF THE CHILD HELD BY PARENTS AND TEACHER

Since this study looked at individual children in individual settings, it is considered appropriate to establish some degree of feeling as to how the parents and teacher view the individual child, before discussing issues which have been raised in the literature.

#### DAVID

NOTE: All references made to David by his parents may be found in Appendix 8 and those made by his teacher in Appendix 9)

David's mother and father consider him to be a very sociable child with a happy, outgoing personality, so much so, that they expressed concern at his propensity to strike up conversations with any available, and,

often unknown adult. It was his high level of sociability which they felt made it important for him to go to an ordinary school rather than to a Hearing Impaired Unit.

He would be travelling long distances. Although he would have had much more individual attention, it was with other children whose disabilities were much greater than David's. Their individual disabilities were much greater. I don't feel that special units are not desirable, but there are particular reasons why he would gain far more from being in an ordinary school, because of his nature, and the fact that he can communicate."

(p.28)

Another important factor was how they believed David perceived himself.

"You see he doesn't really view himself as deaf, which I rather feel, if he'd gone into a Unit, he'd have gradually realised that there was something special or different about him."

(p.29)

However, they appreciate that it is David's phonic ear which has largely given him the opportunity to be in his present school. This placement is viewed very positively by the parents who describe how they looked at many schools but finally chose the one which he now attends, since they believed that the atmosphere there was right for him.

"The impression we got of some, although they were very lively schools and all the rest of it, the impression was they thought how David would fit into the school rather than what they could do for him. It was more what David could do to fit in with them."

(p.28)

David's parents recognised that it was in the area of language in which his hearing impairment had most affected him. His father spoke of the analogy with a computer keyboard,

"You thump all the keys to make sure the information gets in ..... And you do it again and again and again."

(p.29)

Although they were aware of the obvious language difficulties, they were very pleased that David had developed a tremendous love of reading.

"You're getting him ready for school in the morning and he disappears and you find him with his nose in a book instead

of getting dressed. He just goes off. Once he's got his nose in a book, he's lost."  
(p.32)

His mother felt that his language problems were beginning to affect his performance in Maths, and that everything came back to language. David also loves imaginative play and his parents described how he would play with his sister taking on different roles of newscaster etc. There appeared to be great awareness and appreciation by these parents of David's problems,

"It amazes you what hearing impaired children can do, that they are hearing and coping with that, all the time - the exaggerated noise and distortion. The more you think about it, it's amazing that David has got to the stage he has with his speech, knowing that all the time he's hearing that sort of thing. He's got so much to cope with."  
(p.38)

David was described by his teacher as reminding her of the Snoopy character who carries his blanket round with him, and, indeed, this description illustrates the rapport which was so obvious between them. She commented,

"He's so enthusiastic at school, he wants to join in with everything and do everything. He's absolutely delightful - he has been a real treasure to teach."  
(p.41)

David was seen, by his teacher, to be always friendly and outgoing and to be very well accepted by his peer group. The positive social experience of integration for David was stressed,

"I feel that David has got a tremendous lot out of it. I mean I think he has got three parties booked this week for a start, with people inviting him to parties and they are all going to his as well. Now that sort of thing wouldn't have happened if he'd gone to a special unit with children much older than him and from a much wider area as well."  
(p.47)

In interview, David's teacher described him as being:

"very well advanced with his reading, but his number work is slightly behind his peer group, probably because we gave him lots and lots of practical experience to start with, weighing and measuring and that sort of thing to make sure that he really did understand all the vocabulary that is

involved before we went on to actually recording the work  
 ..... His writing is rather big and untidy but this is  
 something to do with the fact he can't see very well."  
 (p.42)

Fig. 6 indicates the teacher's responses which were made when she was asked to rate David in comparison to his peer group.

Fig. 6

COMPREHENSION OF SPEECH	USE OF SPEECH BY CHILD	INTELLIGIBILITY OF SPEECH OF CHILD	PARTICIPATION IN CLASS DISCUSSION
B Fairly good understanding of speech	B Fairly good use of speech	B Slightly defective	B Considerable participation
PARTICIPATION IN GROUP DISCUSSION	WRITTEN LANGUAGE (FACTUAL)	WRITTEN LANGUAGE (IMAGINATIVE)	SPELLING
A Frequent participation	B Good	A Very good	C Average
FLUENCY OF READING	UNDERSTANDING OF MATHEMATICAL CONCEPTS	MATHEMATICAL REASONING ABILITY	SOCIABILITY OF CHILD
B Good	C Average	B Good	A Always friendly and outgoing
ACCEPTANCE OF CHILD BY PEER GROUP	PARENTAL ATTITUDE TO CHILD	EDUCATIONAL POTENTIAL OF HOME	
A Very well accepted	B Concerned, but well adjusted	B Above average	

From the point of view of communication, it seems that David does not encounter too many problems in either being understood or in understanding others, and his teacher indicated that he participated well in class and group discussion, and this factor was evident when he was observed in the class setting. His factual written language was considered to be good, his imaginative written language very good, with spelling thought to be average. When the sample of David's writing (Appendix 6 p.16) is examined, one can see that he uses simple sentences of linear construction,

"We saw the milk tank. We saw the blind calf."

and he is very much a sentence by sentence writer. However, it cannot be assumed that this can be attributed to his hearing impairment, since many children of his age also produce sentence by sentence writing. The teacher had rated David's fluency of reading to be good in comparison to that of his peer group, and, during the observation period, he read very competently from his reading book, *Tim and the Witches* (Flightpath series), with excellent mechanical reading skills, but with difficulty in understanding the words - attic, lodger, basement. David's teacher evaluated his mathematical reasoning ability as good with his understanding of mathematical concepts as average, but when his Number work record sheet (Appendix 19) is examined, it can be seen that David has taken longer than a child who is eight months younger to understand the concept of 'more than'. In most academic areas, David appears to be rated by his teacher rather higher than his peer group, except for spelling and his understanding of mathematical concepts. David's teacher also commented on his curiosity and willingness to ask questions.

"He's got an absolute thirst for knowledge and wants to do everything that everybody else is doing. He is tremendously curious and wants to know and he won't be fobbed off with a flippant answer, 'Oh you know, David.' 'No, I don't, tell me.'"

(p.48)

During the observation period, David gave an overall impression of being a very happy, secure child, whose language was developing rapidly. He was outgoing and friendly and exhibited a natural curiosity. He appeared to be performing very well in this placement with a teacher who showed awareness and an ability to meet his special needs.

It would seem that David has the support of committed and caring adults, who view him as a individual child with rather special needs, to which they are able to accommodate, but which have not become the sole focus of their behaviour.

### JOHN

NOTE: All references made to John by his mother may be found in Appendix 10 and those made by his teacher in Appendix 11)

From the interview with his mother it appeared that John was perceived as being a very normal little boy,

"He's a very happy little boy, full of fun, just a normal little boy."  
(p.52)

His speech was considered to be normal. Therefore, as far as she and the family were concerned, he was normal, although she commented,

"Since I've found out about his hearing, I find that I talk loud..... You have to shout so he can hear, you see."

Since this family had lost one child, it could be construed that John's hearing loss was being placed in a relative context (Luterman 1987), but this has ramifications obviously for John's needs to be met appropriately. There was some hesitation on his mother's part when she commented:

"He still doesn't hear properly if you happen to be at, I think it's his left side is his hearing aid. If you happen to be at his right hand side and you say something to him, he doesn't always hear."  
(p.57)

John's audiogram (Appendix 5 p.12) indicates complete deterioration of hearing in his right ear and it is hardly surprising that he has difficulty. However, there was some incongruity in some of the statements made, since John's mother, at another point in the interview, commented on his growing dependence on his one post-aural aid (p.53). It was stated that John was doing well at school. There had been initial problems with reading, but she had worked at home with him and, although

he still brought his book home, he did not want now to read it to her. If John had been struggling in school, she said that she would have been very concerned, but she had been told by the teacher that John was academically the best boy in the class. Therefore, she considered that John's hearing impairment had not affected him either educationally or socially.

John was obviously perceived very positively by his teacher. Fig. 7 indicates how he was rated in comparison to his peer group.

Fig. 7

COMPREHENSION OF SPEECH	USE OF SPEECH BY CHILD	INTELLIGIBILITY OF SPEECH OF CHILD	PARTICIPATION IN CLASS DISCUSSION
B Fairly good understanding of speech	A Almost normal use of speech	A Normal	B Considerable participation
PARTICIPATION IN GROUP DISCUSSION	WRITTEN LANGUAGE (FACTUAL)	WRITTEN LANGUAGE (IMAGINATIVE)	SPELLING
B Considerable Participation	B Good	B Good	B Good
FLUENCY OF READING	UNDERSTANDING OF MATHEMATICAL CONCEPTS	MATHEMATICAL REASONING ABILITY	SOCIABILITY OF CHILD
B Good	B Good	B Good	A Always friendly and outgoing
ACCEPTANCE OF CHILD BY PEER GROUP	PARENTAL ATTITUDE TO CHILD	EDUCATIONAL POTENTIAL OF HOME	
A Very well accepted	B Concerned, but well adjusted	B Above average	

From an academic viewpoint, John was rated by his teacher as having good written language (both factual and imaginative) and to be a good speller. In considering the quality of the writing sample which the teacher produced as being typical of John's work, (Appendix 6 p.16) the comment could be made that an equally valid opinion could be that the quality was rather poor.

"He went to a contry called Silene there was an dragon the poeple had to give him some sheep evrey day he asked for more sheep after a wile he ate all of the sheep up so they said to the King what do dragon eat he said well they eat children so they gave him children they we in a horrofide mood."

Although John has reproduced the story told by his teacher fairly accurately, the surface features of his writing are poor in that he does not write in sentences, appearing to be totally unaware of the necessity for punctuation, and spelling mistakes are frequent. There is a tendency to omit endings of words. eg. dragon - dragons, we - were, but the language which John uses indicates that he has a good vocabulary. This example encapsulates the difficulty of subjective assessment, in that people look for different things, but what is important is how John is viewed by his teacher, since this will have tremendous influence on his performance in class. John has no problems in communication and is seen as a very friendly, outgoing and very well accepted boy.

In interview, John's teacher commented that his slightly above average intelligence, together with an awareness that he needs to listen carefully, have helped John to succeed. The areas identified as being rather problematic were in Science or Mathematics practical activities where clarification was required of the task.

"He sometimes relies on pictures, you see. Now he can read quite well and again he looks round at others and he sometimes makes a mistake at seeing a child at work, glances at the book and thinks I'm doing the same thing and he copies them and they're not quite on the same topic."

(p.68)

In the observation period, which was a P.E. lesson, John watched his teacher constantly and scanned the other children very significantly, before making any movement. He was quickly chosen to be a team member by another child and he took a very active part in the lesson, in spite of

his need to scan.

The impression gained from both John's mother and his teacher is that his hearing impairment has not affected his performance to any significant extent. Their opinions do have serious implications in that if he is not perceived to have different needs, then appropriate accommodation may not be made to him. Should his hearing loss deteriorate further, as has been suggested by the peripatetic teacher of hearing impaired children, then the consequences will be very serious. At this point in time, he appears to be a very active, happy and carefree child, who is seen by his mother and teacher to be performing well in comparison to his peer group. However, the probability of further deterioration of his hearing coupled with lack of appreciation of his difficulties, may make his future very difficult.

#### MARK

NOTE: The transcript of the interview with Mark's mother may be found in Appendix 12, and that of his teacher in Appendix 13.

On being asked to describe Mark, his mother focused very positively on his character, before addressing the effects of his hearing loss.

"What, how would you describe him? He loves food and football. (laughter) I don't know whether I have got them in the right order. I don't know which is his priority. He's just happy-go-lucky."

She believed that he was very bright but, that if he had not been hearing impaired, he would have attained much more. Concern was expressed that his reading age, when compared to his chronological age, had not improved, although it had been two years above his chronological age when he was six (p.77). His mother also felt that his attainment in Maths was not as good as it had been. She appreciated the need to work with Mark at home and had obviously put in a great deal of time with him, but she now realised that he was falling further and further behind, and that he was missing out on social activities (p.80). Mark's mother felt that the decision to place him part-time in the Hearing Impaired Unit had been the right decision, although she had been opposed to it initially because of the amount of travelling. She now felt he got

"the best of both worlds" (p.81), and this, together with her realisation of Mark's problems, may have influenced her comment when she stated:

"I would, to be quite honest, I would like him to go away to a school for the hearing impaired, but, as I said, the professionals feel he can cope without going away, and I'm not sure that he will."  
(p.85)

She certainly did not want Mark to go to the local comprehensive school which his sister had attended, and at which she had been very unhappy.

To be quite honest, and this is going on record, if they say he has to go there, I'll burn the school down first."  
(p.87)

Mark was described as being a very sociable boy, who would go and seek friends rather than be solitary and withdrawn as his sister had been when she was at school. Mark's mother attributed some of these difficulties to the fact that her daughter had not met another hearing impaired child, and, consequently, with Mark they had become very involved with the National Deaf Children's Society.

Initially, Mark's teacher described him as being a very happy individual, who appeared to be very adaptable to new situations i.e. part-time attendance at the Hearing Impaired Unit. However, she continued:

"He seems a lot happier this year than he did the previous year when he seemed to be very, very frustrated."  
(p.89)

Mark had obviously experienced very significant difficulties in coping with the academic work of his peer group,

"He would burst into tears and be sobbing all over his work rather than come to me and ask me to repeat something to him again."  
(p.96)

She spoke of Mark's frustration at not being able to "compete" with the other children (p.89).

Overall, Mark's academic attainment compared to his peer group was seen as average with specific areas of weakness. In the area of

communication, there appeared to be difficulties (Fig. 7). He was rated by his teacher as having moderately defective speech, with moderate use of speech. He had only moderate understanding of the speech of others, and only occasionally participated in either group or class discussions.

Fig.7

COMPREHENSION OF SPEECH	USE OF SPEECH BY CHILD	INTELLIGIBILITY OF SPEECH OF CHILD	PARTICIPATION IN CLASS DISCUSSION
C Moderate understanding of speech	C Moderate use of speech	C Moderately defective	C Occasional participation
PARTICIPATION IN GROUP DISCUSSION	WRITTEN LANGUAGE (FACTUAL)	WRITTEN LANGUAGE (IMAGINATIVE)	SPELLING
C Occasional participation	C Average	C Average	C Average
FLUENCY OF READING	UNDERSTANDING OF MATHEMATICAL CONCEPTS	MATHEMATICAL REASONING ABILITY	SOCIABILITY OF CHILD
B Good	D Weak	D Weak	B Usually friendly and outgoing
ACCEPTANCE OF CHILD BY PEER GROUP	PARENTAL ATTITUDE TO CHILD	EDUCATIONAL POTENTIAL OF HOME	
D Not very well accepted	A Over-protective	A Much above average	

His imaginative and factual written language were considered to be average, as was his spelling. Two samples of Mark's writing may be found

in Appendix 6 p.17. The first piece of writing was supplied by Mark's teacher, while the second piece was copied by the observer from his book. In the first piece, he begins with an interesting contradictory sentence.

"Mrs..... is tall, thin and a bit stout."

There are omissions of both word endings and whole words, and examples of idiomatic writing in both pieces. Mark is obviously experiencing difficulty in Mathematical areas, where his teacher has rated his performance as being weak.

Mark, who was rated as being usually friendly and outgoing, was considered to be not very well accepted by his peer group. It would appear that Mark has had much more difficulty with social relationships as he has got older and his hearing loss has deteriorated. Mark's teacher mentioned some of the children being spiteful towards him and becoming exasperated with him.

"Some of the children can be quite spiteful at times ..... Not over the deafness particularly, but they used to get exasperated with him. But they don't now, but there again they know him now and have worked with him for several years."

(p.96)

The peer group's acceptance of Mark may not be so much due to their contact over several years, but to increased toleration, particularly since Mark is now only a part-time member of the class, and will only share one playtime with his classmates.

Mark was observed for the greater part of an afternoon session in his ordinary class. The classroom was open-plan and very cramped, with thirty-four children sitting very close to each other. The first activity which was observed was a class discussion prior to writing about a desert island. Mark appeared not to be listening: he did not look directly at the teacher and he yawned frequently. It was quite difficult for the observer to hear what the other children said, although the teacher could be heard clearly. Mark was wearing his phonic ear and the teacher wore the transmitter, which was not passed to the other children as they spoke, nor was there any indication made of who was speaking. There was no feedback given. The class were then asked to write about the desert island and to share their writing and their

drawing with the child next to them. Mark and his partner did not communicate and Mark did not finish his work. After playtime, in which Mark spent his time on the periphery of a football game, the teacher continued to read *The Witches* by Roald Dahl to the class. The children were asked to provide a resumé of the story so far, but again there was no feedback and Mark stayed silent. After about five minutes, Mark took out his own reading book and began to turn the pages until it was time for him and three other children to go and catch their taxi.

The importance of constant review of provision and the necessity for flexibility is highlighted in Mark's example. It did appear, from this brief observation period, that Mark was present in the class, but, for various reasons, he was not actively involved and his needs were not being met very adequately.

#### PHILIP

NOTE: The transcript of the interview with Philip's teacher may be found in Appendix 14. As has been stated previously, Philip's parents did not wish to be interviewed.

Philip was viewed very positively by his teacher who described him:

"Well, he's highly intelligent, not held up really by his handicap. He copes very well with everyday school work. He's lively, interested in everything, brings things from home, participates well in every thing we do in school. He's very keen to do well, highly competitive. He gets on well with other children and participates fully in the daily life of the school."

(p.97)

She felt that the fact that he had been in a small school had helped him greatly, both academically and socially, since everyone had been very supportive to him, and saw him as a normal child.

"In fact, I think they've got so used to his handicap, that they don't see him as being any different than themselves. There again, I think other children, who don't know him, might, but he does integrate very well. He sees himself as normal and we do as well. It's his own image of himself which is important."

(p.98)

Academically, Philip was considered to be the best pupil in his year group (p.102) and his teacher ratings (Fig. 8) would confirm her high opinion of him.

Fig.8

COMPREHENSION OF SPEECH	USE OF SPEECH BY CHILD	INTELLIGIBILITY OF SPEECH OF CHILD	PARTICIPATION IN CLASS DISCUSSION
A Almost normal understanding of speech	A Almost normal use of speech	B Slightly defective	A Frequent participation
PARTICIPATION IN GROUP DISCUSSION	WRITTEN LANGUAGE (FACTUAL)	WRITTEN LANGUAGE (IMAGINATIVE)	SPELLING
A Frequent participation	A Very good	C Average	A Very good
FLUENCY OF READING	UNDERSTANDING OF MATHEMATICAL CONCEPTS	MATHEMATICAL REASONING ABILITY	SOCIABILITY OF CHILD
B Good	A Very good	A Very good	A Always friendly and outgoing
ACCEPTANCE OF CHILD BY PEER GROUP	PARENTAL ATTITUDE TO CHILD	EDUCATIONAL POTENTIAL OF HOME	
A Very well accepted	A Over-protective	C Average	

Philip's particular strengths in Maths and Art were mentioned (p.108) and his teacher expected him to function exactly the same as the other children, although, initially, she had given him much more attention. Two samples of Philip's writing may be found in Appendix 6 p.19. The first piece, which is factual, is very short and indicates sentence by

sentence writing. Apart from the first and last sentences, the others are short and linear in construction. There is a mistake in tense, 'used' instead of 'use' and 'it' is used instead of 'is'. The second piece of writing, which is imaginative, is quite a contrast to the first. It has been produced on a word processor and Philip has been able to discuss the piece with his teacher. He has not had to cope with syntax to any great extent, and the visual presentation of the material has allowed him to collaborate and to amend his work. Text editing programs would seem to be invaluable in helping to improve the quality of the hearing impaired child's written language.

Socially, Philip was also rated highly, being very well accepted by his peer group and appearing always friendly and outgoing. However, in interview, Philip's teacher commented on his occasional emotional outbursts.

"He's obviously got better over the last year and he's now quite a mature fourth year. The immaturity shows in little bouts of temper, when he can't cope with himself sometimes. It's frustration, and then it builds up and then he does tend to explode very quickly. He has got a bad temper. It's over very quickly, but it's an emotional aspect of him that he hasn't got quite under control, but then a lot of adults don't either."  
(p.99)

An example given by the teacher was that the other children might tease Philip and he would over-react, whereas, in the same situation, they would tend not to respond in the same way.

Philip was observed taking part in a practice for Sports Day. He was a team leader, who organised his team well, showing them how to do Tunnel Ball very efficiently. He was a popular, well motivated boy who was a very able athlete. In the classroom situation, he was observed working very quietly and conscientiously at Maths. He was interrupted by a younger child, who asked him for help. Philip explained the problem very clearly and patiently, with excellent use of language.

It would seem that Philip was academically working to his potential and that he was a very well accepted member of the class. The only difficulty which was expressed by his teacher was that, since Philip was so big and strong and sometimes aggressive (p.105), this could cause problems in Physical Education where he could flatten the other children.

SIMON

NOTE: The transcripts of the interview with Simon's parents may be found in Appendix 15, and that with his teacher in Appendix 16.

Simon's mother described him as being a very athletic child, and this was seen as a positive aspect which both parents had actively encouraged.

"He has developed that more so than he possibly would have done if he had not been deaf. He's not interested in words so I see him as an athletic child. I see him as an athletic child. He's quite happy. We live in a small community which is ideal for him. He doesn't get taunted or teased. He's accepted for what he is."

(p.110)

His parents felt that his hearing impairment had affected him educationally, since he showed little interest in words or reading.

"His vocabulary is way down. That's also affected his spelling, his English. He's not interested in reading because the written word and words don't hold that much of a fascination for him."

(p.116)

This was obviously a great matter of concern for Simon's parents, both of whom were teachers, placing great value on the printed word. They had spent a great deal of time with Simon encouraging him to read more, but with limited success. Simon's father felt that he was more involved with visual and physical activities, and that it was difficult to say the degree to which Simon had been affected socially. He coped very well in small groups, but was very quiet in larger groups or in strange situations. There had been instances when Simon had misunderstood other children and had thought he was being picked on (p.120).

The description which Simon's teacher offered of him was:

"He's a perfectly normal boy, enjoys football, running about, has a good sense of humour, and for me, anyway, he has no inhibitions at all about his hearing as evidently he did before he came to me."

(p.133)

She believed that Simon's hearing impairment had affected his attainment in English, but that if he read more his vocabulary would improve. In

rating Simon in comparison to his peer group, (Fig.9) his teacher said that he had almost normal use of speech but that his own speech was slightly defective in intelligibility.

Fig.9

COMPREHENSION OF SPEECH	USE OF SPEECH BY CHILD	INTELLIGIBILITY OF SPEECH OF CHILD	PARTICIPATION IN CLASS DISCUSSION
B Fairly good understanding of speech	A Almost normal use of speech	B Slightly defective	B Considerable participation
PARTICIPATION IN GROUP DISCUSSION	WRITTEN LANGUAGE (FACTUAL)	WRITTEN LANGUAGE (IMAGINATIVE)	SPELLING
B Considerable participation	B Good	B Good	B Good
FLUENCY OF READING	UNDERSTANDING OF MATHEMATICAL CONCEPTS	MATHEMATICAL REASONING ABILITY	SOCIABILITY OF CHILD
B Good	B Good	B Good	A Always friendly and outgoing
ACCEPTANCE OF CHILD BY PEER GROUP	PARENTAL ATTITUDE TO CHILD	EDUCATIONAL POTENTIAL OF HOME	
A Very well accepted	B Concerned, but well adjusted	A Much above average	

His written language was considered to be good, and an example of this (Appendix 6 p.18) has been written using a word processor. Since this piece of writing had been corrected by his teacher, comment can only be made on the idiosyncratic phrases which Simon uses.

"I was holding on to Ranjit for grim of death."  
"Ranjit and I talked how amazing it was what we saw."  
(p.18)

Simon's teacher felt that she expected him to function exactly the same as the other children, and that he was far less trouble than other children in the class. Socially, she rated Simon as being very well accepted by his peer group and always friendly and outgoing.

Simon was observed for a morning session, working in a class of nineteen children, aged 8 to 11 years, who were all working individually from their Mathematics text books. Simon had been reprimanded by the teacher immediately prior to the observer entering the class room (p.139). He worked steadily and quietly during this session. At playtime, he was lively and very much involved in the activity with his friends. The following session began with the class working from English workbooks. Simon had to fill in a space in a sentence from a list at the bottom of the page. He had great difficulty with this. His teacher told him to look the words up in his dictionary. This was unfortunate because the word was in a different context and Simon became very confused. In one particular example,

"The tiger can ..... its prey."

the missing word was stalk. Looking this up in the dictionary gave Simon the definition, stalk - a part of a flower. Another example with which Simon had difficulty was,

"The space ship went into ..... ."

The missing word was orbit, and the teacher offered the explanation,

"You know, Simon. The Queen carries an orb, you know the round ball she has in her hand. The word you want is orbit."

Simon gave the impression to the observer of being a very active, friendly boy, who, in the observed session, did not appear to be well motivated. It appeared that the work which Simon had been given to do was proving too difficult for him without prior appropriate discussion. Certainly his teacher appeared to believe that, although she thought he was working well, he tended to use his deafness as an excuse, when he

was caught talking.

"I just treat him like everyone else. He gets told off if he's talking when he shouldn't be talking, and, of course, he uses his deafness there. He says he can't hear, you know, this sort of thing."

(p.136)

There is some degree of dichotomy between how Simon's needs are perceived by his teacher and by his parents. Simon's mother commented:

"His present teacher wants to help him, but isn't really interested in the deafness at all, or really tries to understand it."

(p.130)

However, it appeared to be very important to his parents that he should be educated in an ordinary school, and, despite their reservations about his present teacher, they were very grateful for this opportunity for normality, as they saw it.

ISSUES, RAISED IN THE LITERATURE, WHICH HAVE BEEN HIGHLIGHTED BY  
ILLUSTRATIVE EXAMPLES FROM RESPONSES OF PARENTS AND TEACHERS

PARENTS' RESPONSES TO THEIR HEARING IMPAIRED CHILD

A child's positive self concept will be moulded to a very great extent by how he is perceived by his parents (Darling 1979). If parents view their child positively, then he will bring to an integrated placement a well balanced personality and will be better equipped to meet the challenges of such a placement.

Parents of the sample children viewed them most positively, describing them as "happy", "carefree", "happy-go-lucky" etc. Focus was very much on the individual child's personality, with positive aspects being stressed. The ability to look beneath the hearing loss to the child (Luterman 1987) seems to indicate a realistic acceptance of the child as he is.

"I think one of the major mistakes parents of deaf children are most apt to make is to get so caught up in the deafness that they fail to meet the child's developmental and psychological needs - in short, to forget the child underneath the deafness."  
(ibid p.32)

These sample children appeared to be viewed uniquely by their parents as having the same basic needs as other children, but as having hearing deficits.

"Hearing impaired children are children first, very much like normally hearing children, and children who happen to have a handicap second."  
(Grant 1987 p.3)

As David's mother stated,

"You know one of the things somebody totally unconnected, just a neighbour, said to me that really hit home,.....  
Well, he's still the same child, you still love him the same. It's just the fact that you know. He's not any different than he was before. It's just that you know!"  
(p.37)

On being asked to describe their child, two parents used the word "normal" in their initial responses. David's mother referred to the

attributes of his personality helping him to be placed in "normal" school. Interestingly, Simon's mother asked for qualification of the question (p.110), but John's mother appeared to believe that her son had not been affected either socially or academically by his hearing impairment, and that he was a very popular and lively little boy. John's hearing loss had not appeared to be significant until he was about four years old, and, therefore, his language and speech patterns were already developed. Other parents whose child had been diagnosed at a much earlier age believed that their child had been affected, but, nevertheless, they displayed very positive attitudes. They had realistic expectations,

"There are a lot of things that he won't be able to do. He won't be able to be an airline pilot or anything like that, but I feel very encouraged from seeing other children succeeding."

(David's father p.36)

and they displayed a sensitive awareness of the role which they would have to play in the future.

"I mean there are a lot of plus factors that he has got that we have to just build on and the fact that there'll be a lot of jobs that he won't even be eligible for with his hearing impairment. We'll just forget these and concentrate on what he might be able to do."

(Simon's father p.126)

Only one parent mentioned the negative aspect of temper tantrums referred to in the literature (Gregory 1976, Reed 1984), although there had been more difficulties when children first received their aids.

Parental influence on the development of self-concept is decisive, and is inevitably influenced by the ways in which parents are made aware of, and come to terms with the diagnosis. This issue has been discussed in Part A, Sections 2 and 5, of this study, where the necessity of parental counselling and support have been established. A certain degree of insensitivity to the needs of parents at the time of diagnosis is revealed (Gregory 1976). Nolan and Tucker (1981 p.78) indicated criticism levelled at doctors who gave "hasty and casual diagnoses". Three parents commented on the way in which they were informed of their child's impairment. For some, it was a harrowing experience, and two mothers were particularly upset as they talked about

it some years after the event (David's mother p.25). It is hoped that the other mother's recollection of her experience,

"Totally devastated, totally devastated, because I went in, unsuspecting. It was a hot day. I was sort of overdressed for it. As you know, the room, the doors and windows were all closed to make it a soundproof room, and without asking if I, well I can't remember now if they asked whether I minded, but there was a row of students sat there. It reminded me of a row of monkeys sat there..... At the end of the test, the doctor said, 'Well, as you see, he does have hearing problems'.....And I just absolutely crumbled, and all those students just sat there. My entire world disintegrated, and I think that was absolutely appalling."

(Simon's mother p.111)

is not typical, but the diagnosis had obviously had a profound effect on her, as she later described how the peripatetic teacher for hearing impaired children "dragged me back from the edge of a nervous breakdown" p.121. Mark's mother, suspecting that he had a hearing loss, felt that she had to convince the consultant of this (p.71). This is consistent with the findings of Fellendorf (1970), Freeman et al. (1975) and Gregory (1976).

Grant (1987 p.66) describes how parents can re-affirm their denial of the impairment by searching for incidents which indicate that their child can hear, and Simon's mother illustrated this by describing how she carried out tests with him (p.112). The need for time for parents to come to terms with the disability is highlighted in the literature (Moses in Powell et al. 1985), and parents described the length of time which was required for their coming to some sort of acceptance.

"There was a six month, no, four month period between diagnosis, and Simon wearing his hearing aid and for us coming to some sort of acceptance. It was a terrible pendulum which swung 'Oh my God, he's deaf,' when he didn't respond to anything, to 'Oh no, he isn't!' And the pendulum finally stopped swinging about two to three years after diagnosis. It took so long to settle."

(Simon's mother p.112)

Mark's mother commented,

"It took me a full year to accept it. A full year exactly ..... Somebody asked me 'How's he getting on this little lad of yours?' and I said 'He's going deaf like his sister',

and I broke down in the middle of the street."  
(p.72)

However, through working their way through the grieving process, the devastation experienced by parents at the time of diagnosis became replaced with positive values and attitudes.

"Yes, it's important for someone to help you get over the shock as quickly as possible so that you can become positive. It's easy to say that. It's less easy to do. We know, we've been through it."  
(David's father p.37)

What must be considered is that the influence the parents have on the child is not just a unidirectional influence, but the child's behaviour and responses will also affect his parents, and, in turn, affect their behaviour towards him.

Grant (1978 p.66) comments on the degree of influence which grandparents have in helping or hindering the adjustments made by the parents. Three sets of parents commented on the inability of grandparents to understand what had happened (David p.25, Simon p.111 and Mark p.73), but John's mother felt that her immediate family had been very supportive and understanding. Prior to John's diagnosis, this family had lost a child in a tragic accident, and to them, hearing impairment must have appeared a relative loss. Parfit (1975) highlights the issue that often the needs of siblings of handicapped children tend to be overlooked, and parents of the sample were aware of this possibility. David's parents spoke of the "disenchantment" of their elder daughter and her feelings of rejection towards David who demanded so much of her parents' time (p.26). Luterman (1987) states that siblings will take their cues from their parents as to how they should react, but the effects on the hearing siblings will be complex and varied. These parents appear to appreciate the cost to everyone of the extra attention they believed their hearing impaired child required.

"It took all the enjoyment out of it. All the things that I wanted to do with Simon, you know as a parent, as a teacher - the things I'd looked forward to. We'd waited for the children, set the house up - all the joys of it because it was a false thing. Yes it did, it took the pleasure out of having his sister for me because I had to do it with Simon, it was a shame."  
(Simon's mother p.113)

When the mothers of John and Mark were interviewed, they made no reference to their husbands. This may just have been by coincidence, but Luterman (1987) suggests that very often fathers tend to be rather distant,

"Very often, the cause of the father's distancing may lie within the mother-child dyad or the marital relationship..... . Many of these mothers have unresolved feelings of guilt and feel that 'repairing the damage' is their responsibility..... For many mothers, the deaf child becomes a means of realizing their self-worth."  
(ibid p.4)

Parents appeared to be very aware of the implications of hearing impairment, mentioning the necessity of, and their commitment to, language development.

"I think you are conscious all the time that they've got to be learned - you've got to keep them on a par."  
(Mark's mother p.77)

Parents, guided by the peripatetic teacher of hearing impaired children, had worked very hard with their children in this area, using puppets, playing games etc. Two specifically mentioned playing counting games while travelling in the car. Their comments do not lend support to the research of Connor (1971) who found that the majority of parents in his sample only carried out a fraction of the activities suggested to them. Through the use of a home-school notebook, work done in school was followed up and consolidated. All the parents spoke of the need to correct speech (David p.33, John p.57, Mark p.82, Simon p.119). In Mark's case, his mother had to do a considerable amount of school work with him at home. When this became detrimental to Mark having any social time, it became obvious that extra help needed to be available within the school situation.

"He was falling behind - he was having more and more work at home which wasn't fair to him when he'd had his day at school, and coming home and having to spend another hour doing homework. He wanted to be outside kicking a ball and playing with friends. 'Can so-and-so come to play?' 'No, you've got your homework to do'."  
(p.80)

Children were seen generally by their parents as being very

sociable. However, one set of parents commented on the difficulties their son experienced in conversations within a large group, which sometimes resulted in misunderstandings.

"There have been one or two occasions where he's got the wrong end of the stick from something someone's been saying. He's got really upset and it's been way over the top for what's happened because he hasn't picked up on something. He's thought he's been picked on for something and he hasn't really. But maybe they've all been talking to him at once and he can't quite hear what they are all saying and he's come home in tears."

(Simon's father p.120)

Other difficulties in social interaction were the problems of communication during a game of football (Mark's mother p.78). She illustrated a situation where the hearing impaired child might be in an advantageous position.

"They'll ride round on their motor bikes which is lovely, because nobody can hear what anybody is saying when motor bikes are revving up. When there's three or four motor bikes racing by or they're stood in this little group with all the engines revving, Mark has the advantage because he can lipread the others, and the others are saying 'You what?' And Mark is way ahead with that."

(p.78)

Parents viewed their children as being appropriately placed in ordinary schools. Darling (1979) considers that parental acceptance of school placement might be considered a crucial variable in the adjustment of the child and positive attitudes towards their child's placement were expressed by all parents. Simon's parents described their feelings of shock and horror on being told very shortly after diagnosis that Simon should be considered for a boarding school placement.

"I mean they said almost when he was diagnosed, 'We must consider the ..... Boarding School for the Deaf'. We'd already decided before we knew about Simon being deaf that we didn't want to send a child away to a boarding school ..... So it was a terrible blow, and then for them to say, 'Well, send him away'."

(p.122)

As the other parents, they had hoped for the integration of their child into ordinary school.

"We very much wanted him to go to a normal school, to mix with normal children. We felt that if he couldn't keep up then we were quite able to give him the extra at home but that was paramount. We didn't want him to go to a Unit."

(p.114)

The reason given by these parents for not wishing their child to attend the Hearing Impaired Unit was that they believed the Unit children were perceived by mainstream children as "the funnies in the corner" p.114. Mark's mother recounted how she had not informed the Headteacher of her son's school about his impairment since she believed that he would refuse admission.

"I will be perfectly honest. I didn't tell him that Mark had a hearing loss ..... I dropped the bombshell on the new Headmaster when they started back in September when Mark went in sporting his little hearing aids."

(p.75)

Children were perceived by their parents as working to their level of potential in most cases, and certainly, from the teacher's ratings, it would seem that three of the group were doing so. Simon's parents indicated that he was doing very well at school, but they wished he would read more - a comment which was also made by his teacher. Mark's mother had come to terms with his part-time attendance at the Hearing Impaired Unit, realising that he required extra help which could not be available in his local primary school. It appeared that all parents of the sample had strong links with their child's school, and they all felt that their child benefited from an ordinary school placement. Although Mark was struggling academically, his mother appreciated the social benefits of a local school placement. Parents supported the work being done in school by hearing their child read, correcting speech where necessary, and showing a certain understanding of the implications for the teacher of having a hearing impaired child in the class.

Parents spoke of their anxiety about their child's future. As the school which David attended was about to have a new Headmistress, this caused his parents some concern (p.36), but they also tended to have a somewhat philosophical view.

"I look on the black side. What's going to happen with education generally, Government policies etc.? I think it's

very important not to plan too far ahead, because situations change."

(David's mother p.36)

The gravest area of concern for the parents of the older boys appeared to be the placement of their child at secondary level, and their anxiety at the uncertainty of provision was very evident (John p.55, Mark p.85, Simon p.123). Once Simon had visited his secondary school, his parents said they were less anxious, but Simon's mother commented,

"I'm very worried about secondary school. This year has been plain sailing, and the peripatetic thinks so as well. She obviously feels he doesn't need the back-up this year, but she's going to have to work twice as hard next year, mainly I think with the big input of vocabulary that he is going to fall down on. That's going to be the stumbling block and things are going to get more difficult, certainly for the next few years. As to the future, employment, of course we worry about that."

(p.123)

Certainly the transfer to another school and adolescence are the points which have been identified in the literature (Moses in Powell et al. 1985) as being problematic, and this is also indicated by the peripatetic teacher for hearing impaired children,

"Yes, any change from school to school, and adolescence. Parents who have, until then, not exhibited a great deal of anxiety, not overt anxiety, can suddenly be devastated round about the time of adolescence."

(p.153)

Getting others to understand the implications of hearing impairment was regarded as very important by parents.

"I'd wave that magic wand, and I'd hope the whole world would be aware how difficult it is to have a hearing problem, because they are not aware. They think hearing aids will cure the problem."

(Mark's mother p.87)

She spoke of the need to explain to other children about hearing impairment (p.79). Two parents mentioned difficulties with other children which they believed had been caused through lack of understanding. It would seem that, in this aspect, the teacher could provide a good model and help to make the children aware of the child's

needs. In some cases the teacher had prepared the other children, who were aware of the need to face the hearing impaired child etc. Sometimes friends appeared to know better than the parents. David's parents commented on the amount of well-meant, but misguided advice which they received,

Sometimes people think a phonic ear cures the hearing impairment.....People say, 'Oh, glue ear - he'll be all right. My little boy had it, and he's fine now.' And people say, 'Is he going to get better, is it going to improve?' And you have to say 'No, it's nerve deafness, it isn't.' 'But he can have an operation,' they say."  
(p.38)

Other parents made similar comments (Simon p.127). There appears to be a certain difficulty here for parents. On the one hand, they expect, quite rightly, understanding of the implications of the hearing impairment, on the other, they have some desire for normality.

"If he's going to integrate later in life he's got to get over the fact that he's got special needs, that he's not set up on a pedestal and has to be cushioned all the way through. We would like him to fit in as a normal hearing person."

(David's father p.29)

The importance of the teacher's understanding is paramount, (Fisher 1964, Paul and Young 1975) and parents commented on this, not always to the advantage of the teacher.

"It's very, very difficult, and it's only a small percentage of teachers I think, who are really interested. His present teacher wants to help him, but isn't really interested in the deafness at all, or really tries to understand it, and in so many cases, it's a case of, 'Well, you hear when you want to, don't you?'"

(Simon's mother p.130)

This statement illustrates the conflict which a hearing impaired child may face. Superficially, his appearance and his communicative behaviour may lead to the expectation that he is able to conform as other children, whereas his impairment and concomitant language difficulties prevent him from doing so.

The responses made by this very small sample of parents do illustrate many of the issues raised in the literature, and the parents

give the impression of having been able to come to an acceptance of their child as he is, and of being able to focus on him firstly, and on his handicap as a secondary issue. Their areas of concern eg. awareness on the part of others, their child's future, etc. do not prevent them from taking a very positive stance with regard to their child and to his present placement. Certainly, their ability to adapt to the hearing impairment seems to have had substantial effect on the child's perception of himself.

#### TEACHERS' RESPONSES TO THE HEARING IMPAIRED CHILD

The research of Armstrong (1980) and Bennett et al. (1984) indicates that teachers base their perceptions of a child on his abilities and competences, his behaviour and work habits. Entwistle (1987) suggests that the main characteristics of pupil learning are skill in learning, approach to learning and attitudes to learning. Certainly these are facets which were considered important by teachers interviewed in this study.

The personality of the child was recognised as an important factor by every teacher particularly with regard to the child being able to get on with other children. Nix (1976) highlights one of the important parameters for a successful mainstream placement as:

"A secure and outgoing personality which exhibits a resilient, gregarious nature."  
(p.259)

One child, Mark, was described as a loner by his teacher.

"I don't know whether he would have been a loner with or without his handicap. He doesn't seem to be bothered about being on his own, he joins in with other children when he needs to."  
(p.90)

Mark's part-time attendance at the Unit has lessened the contact with his peer group in school and this may have increased his isolation. However, many children, described as loners, are perfectly happy to be so, and Mark's teacher did not seem concerned, describing him as a happy, cheerful boy. The other subjects appeared to have outgoing

personalities and were described as "happy-go-lucky", "carefree", "well-liked", "popular" etc. They were all well accepted by their peer groups.

"With the other children he himself doesn't seem to feel different in any way. And the other children accept him ..... I've never yet heard of another child mocking him or hurling any kind of abuse at him at all to do with his hearing, never called him deaf ..... They're very tolerant towards him, and he seems to be tolerant towards them."

(John's teacher p.61)

It is interesting to consider whether this two way tolerance correlates with the two way process of accommodation suggested by Lynas (1979). Mention was made of the hearing peer group being envious of the hearing impaired child's ability to lip-read (p.41). Teachers perceived the attribute of curiosity as being very positive.

"He is tremendously curious and wants to know and he won't be fobbed off with a flippant answer."

(David's teacher p.48)

A good sense of humour was also mentioned:

"He's marvellous really, he's an absolute case - he can have us in stitches you know."

(John's teacher p.63)

A salient point was raised by Simon's teacher, who said that she would prefer to have another hearing impaired child rather than a boy in the class who was very difficult and a girl who was very backward.

"They give me much more trouble and need much more work and effort than Simon does."

(p.137)

Her comments are in agreement with the research of Croll and Moses (1985) who found that teachers on the whole were much more reluctant to have ESN(M) and maladjusted children than sensory impaired children in their class.

Although Philip was perceived most positively by his teacher,

"He's highly intelligent, not held up really by his handicap. He copes very well with everyday school work, interested in everything, brings things from home,

participates well in everything we do in school. He's very keen to do well, highly competitive. He gets on well with other children and participates fully in the daily life of the school."

(p.97)

he was the only child who was described as being immature.

"The immaturity shows in little bouts of temper, when he can't cope with himself sometimes. It's frustration and then it builds up and then he does tend to explode very quickly. He has got a bad temper.....He is very quick, very volatile."

(p.99)

The behaviour problems attributed by some researchers to hearing impaired children (Schlesinger and Meadow 1972, Myklebust 1960) do not appear to manifest themselves in this group of boys. Philip's very quick emotional reaction to situations was seen by his teacher as not being directly connected to his hearing impairment but rather a personality trait.

The ability of the child to cope with school work and to communicate well were also regarded as important. Teachers spoke of "a bright child", "highly intelligent", "competitive". Gonzales (1980) states that the closer the hearing impaired child's academic abilities to the peer group the greater the chances of academic success in integration programmes. Certainly all the children, with the exception of Mark, appeared to be generally coping well with the work presented to them in school. John's teacher, mentioning the admission of a child with extreme communication difficulties, stated that one of the reasons why John was being integrated so successfully was because of his level of intelligence.

"John's problems aren't like hers. Whether John is blessed with having a slightly above average intelligence. I think he's about 110 or 115. I'd have to look at my records, we've done an N.F.E.R. with him this year, you see. Now that's made all the difference to a boy like John. Had it been someone else in my class, and I've got two lads who come out 85/90. If they had had that same lack of hearing, that same disability, then I'm sure they would be further behind by a long way. But John has managed to use his innate abilities to compensate for them and do very well."

(p.67)

Good communication skills were also recognised as being important.

"He communicates well with other people. Within a classroom situation, nothing stands in his way. If he wants to tell you something, that is it, he joins in the class discussions. He's not backwards at coming forwards at all."  
(Philip's teacher p.103))

Each teacher mentioned motivation as being a most important characteristic of the sample, all of whom were considered to be very well motivated. The descriptor "competitive" was used many times. Mark's teacher described the frustration which arose when Mark found he could not compete with his peer group (p.89). Philip was recognised by his teacher as being intensely competitive.

"In all his subjects he has just tried so hard, he's very competitive, he likes to come first. He likes to win, spelling tests, he's very upset if he doesn't get 20 out of 20. The same with mental tests, tables, things like that. He really likes to be up there at the front. It's very good and this will keep him going - he's absolutely self-motivated."

(p.109)

Towards the end of her interview, Philip's teacher raised a most important issue,

"Are we looking at his potential as a handicapped child or are we looking at his potential as a normal child?"  
(p.109)

This would seem to be the crux of the integration debate. With whom are these children compared? Her concern was, that at secondary level, Philip would be judged alongside normal children and that he, despite his self-motivation, would not be able to sustain his present level of achievement. However, all these children are being judged alongside their peer group in their present placement, and this teacher has stated already that Philip, in comparison to the rest of his group, was performing better. This is an exceptionally interesting issue, which should have been followed up in the interview situation.

It would seem that the view which the teacher takes of the child depends on such factors as intelligence, personality, motivation etc., but her perception also depends on her understanding of what hearing impairment means in an educational context, and the degree of

accommodation which she is prepared to, and indeed does make, to the child's special needs.

#### TEACHER AWARENESS OF THE IMPLICATIONS OF HEARING IMPAIRMENT

If teachers are unaware of the significance of a hearing impairment, then they will be unable to make any positive attempts to adapt to the needs of the child. In the sample, teachers exhibited varying degrees of awareness. They all appreciated that the children for whom they were responsible had significant hearing losses, but not all of them understood the implications of this. Quigley and Kretschmer (1982) state,

"the primary concomitant effect of a hearing impairment is a deficit in English language skills."

p.56

and, indeed, each teacher appeared to recognise that the child would experience difficulties in language. Simon's teacher commented that his hearing impairment had affected him in English because of the words he didn't know, and because he didn't like reading, this also held him back.

"It's a pity really because if he did read I think he would be more or less normal."

(p.133)

It would be facetious to suggest that this teacher believed that if Simon read more, then he would be "more or less normal", but there appeared to be a certain lack of understanding evident in her practice within the classroom and her comments made in interview. When asked what she had found to be the greatest difficulty, this teacher said,

"You know I haven't had any ..... the only difficulty has been when he's been off hand like he was this morning just before you came. He was in tears. I told him to go and get a litre jug. Now, of course, if I'd stopped before I went on at a great rate I might have realised. Perhaps he hadn't heard me say litre jug and the smallest millilitre jug he could find which is a ten millilitre container. But I think it was because he didn't bother to look. You know like the other children will - the little one was hidden behind another piece of apparatus and I had to go across and get

it. And I told him what I thought of him."  
(p.139)

On the morning in question, Simon's phonic ear was not functioning properly, the batteries failing to hold a charge. Simon was a boy who had been described by the peripatetic teacher as being able to pass superficially as a hearing child, because of good use of residual hearing. When Simon was unable to respond positively to his teacher, she regarded his behaviour as negative. This is a problem which many hearing impaired children face:

"On the one hand because of his superficially normal appearance and communicative behaviour, he is expected to act within a certain framework of expectations: on the other hand, because of his hearing loss, with the attendant language problems he is unable to do so."

(Ross, Brackett and Maxon 1982 p.36)

Some lack of awareness was also apparent in the comments made by the teacher of Mark, the most severely impaired boy in the sample.

"It was this feeling of everyone else is understanding, I don't understand what you're on about. Simple things like the word isosceles triangle. We've used that word I remember a year ago quite a lot over a period of time, and he hadn't even a clue how to say it or attempt to say that word so he hadn't picked up that, or even what an isosceles triangle was."

(p.96)

One might conjecture how the word "isosceles" would be received by Mark, who has very limited hearing in any frequencies other than the very low frequencies (Appendix 5 p.13). Both these instances illustrate lack of awareness on behalf of the teachers, since they had both seen their pupil's audiograms, but neither had appreciated the consequences of the particular level and type of hearing loss.

There were also instances in which teachers indicated a sound understanding of the difficulties. David's teacher gave numerous examples of how she understood the implications of his hearing impairment, one being,

"We gave him lots and lots of practical experience to start with ..... to make sure that he really did understand all the vocabulary that is involved before we went on to actually recording the work. There's absolutely no problem in his understanding but it's just that we have been extra

careful to make sure that he really did understand what we were talking to him about before we went on."  
(p.42)

The need for consolidation was stressed by teachers and also the need to appreciate that the hearing impaired child may not grasp even everyday concepts, in the same way, or, as quickly, as his hearing peer group.

"and also to find that when you are teaching a child, there are little blank areas, blank spots that you assume a child knows and the hearing impaired child often doesn't, areas of comprehension, little bits like that."  
(Philip's teacher p.103)

It is interesting to note the perceptions of the peripatetic teacher of the hearing impaired children in this sample. Her comments are general rather than specific,

"I don't think that the majority of teachers are sufficiently aware of the effects of the hearing loss to recognize what aspects of a child's performance are being affected by the hearing loss and whether it's some aspect that has not been affected by the hearing loss. They're not sufficiently aware of the effect of the loss and how it can affect a child. It's not their fault."  
(p.150)

Certainly, lack of awareness may not be blamed on one single factor, but rather is the result of a combination of factors, many of which have been reviewed in the literature. It would seem that positive steps need to be taken to facilitate and increase teacher awareness and this issue will be discussed in the concluding section of this study.

#### ACCOMMODATION OF THE TEACHER TOWARDS THE HEARING IMPAIRED CHILD

The degree to which a teacher may meet the needs of a hearing impaired child will depend on several factors, eg. teacher competence, awareness, present conditions within the classroom etc. The most important of these variables may be how the child is viewed by the teacher in comparison to his peer group. Is he regarded as different and having different needs? Is he regarded as different but having similar needs? Is he regarded as similar and having similar needs? Or is he regarded as similar but having different needs? Certainly it appears that the

hearing impaired child is different and has different needs, but also has many similar ones to those of his peer group. Where the implications of a hearing loss are not fully understood, then it is possible that the teacher may believe that the child only has similar needs to his peer group.

There seems to be quite a fine balance in making appropriate provision, between too much positive discrimination, sometimes at the expense of the other children, and too little positive discrimination.

"Especially in his early years he had highly individualised attention, perhaps, sometimes, to the detriment of the other children, who have perhaps not developed as successfully as they could have done had Philip not been in their class."

(p.101)

Lynas (1980 p.53), in her observations of teachers with hearing impaired children in their classes, placed teachers on what she described as a "positive discrimination continuum". This could appear to be rather unhelpful since a teacher may make a different response to individual children depending on such factors as personality and, not necessarily, on hearing impairment.

In David's case, the ethos of the school had obviously influenced his teacher's philosophy (pp.43, 46). This teacher indicated an understanding of the implications of hearing impairment and appeared to accommodate to David's needs most appropriately. However, this seemed to be not so much a deliberate policy but very much indicative of her belief in the unique value of each child.

"Treat them like any other child, but maybe be a bit more patient sometimes, and maybe at the back of your mind each time you sort of are giving instructions, or explaining something or introducing something new just think to yourself 'Have I said that clearly enough? Have they been looking at me as I've said it? Have I made sure that the child has seen the picture or seen the equipment or knows where to find the equipment?'"

She continues,

"I think that's the sort of thing that you have to do with all children, anyway. You make sure that each level, each age range, each ability range understands what you want them to do, so I don't think the fact that he has got a hearing impairment means that he is any different. You treat all children like that, don't you? You can't just issue bland

instructions to all the children and expect them to know what they've got to do. You have got to treat them as individuals."

(p.50)

Among the management techniques mentioned by this teacher were the checking of hearing aids each morning, explanations to other children of lip-reading, constant review of placement, use of home - school notebook, resumé of story, immediate correction of speech mistakes, accurate record keeping and consultation with the peripatetic teacher of hearing impaired children.

Unfortunately, some of the other teachers did not exhibit a comparable degree of awareness and adaptation. Simon's teacher said that she had not had to adapt her teaching approaches, and certainly it did not appear, on observation, as though she did so. She expected the same level of functioning from Simon as from the other children and said that she treated him exactly the same. Simon's desk had been positioned so that his back was to the teacher because he had been talking to another boy. She commented,

"But even with his back to me he seemed to catch on very quickly. Well, he's got the ability now to cope with his impairment."

(p.134)

Fortunately, the intervention of the peripatetic teacher resulted in the re-positioning of the desk. During the observation period, Simon's class worked generally in silence. If Simon did not hear/understand what his teacher said then he could not receive clues from his peer group. He was actively discouraged from talking.

"He gets told off if he's talking when he shouldn't be talking and, of course, he uses his deafness there. He says he can't hear, you know, this sort of thing."

(p.136)

However, it must be said that, in many ways, the quiet working atmosphere would be appropriate for Simon, and one of the criteria considered to be necessary by his father.

The provision of radio aids for the sample could be considered a key to their placement in ordinary school. During the observation periods, two of the five teachers were not wearing their transmitters:

one child's receiver was not working. Although John's teacher had taken over the charging of the batteries for the radio aid, he did not appear to place quite the value on its importance which might have been expected.

"As I say I use it 75% of the time I should be using it with him, I think I am. I've read all the pamphlets, the peripatetic teacher gave to me and occasionally we do pass it round the class. When we were having a Look and Read T.V. serial and we read books round the class we passed it round then..... I mean obviously what's in the books is the ideal, and if you did that all the time, you would be forever fiddling about with it. But he does get by so well, he does get by a lot without it in general."

(p.65)

Another instance of a radio aid not being used appropriately was observed when Mark's teacher, during a class discussion, neither passed the aid to the child who was speaking nor did she repeat what was said. When Mark was asked to work with another child, his radio aid remained with his teacher.

Although Mark's teacher did, in interview, appear to have some understanding of Mark's needs, she already felt she was operating under difficult constraints.

"Well, unfortunately, you haven't got the time to treat him really much differently, although you would like to. That's why I found it frustrating myself last year. I found that I was having to give him extra tuition, if you like, because he'd got upset and didn't understand things, during a lunchtime or a playtime, and I realised that this was just not on. It wasn't fair on Mark, it wasn't fair on the other children, and not every teacher would do that and could be expected to do that."

(p.90)

This teacher spoke of her feelings of frustration at the situation of trying to cope with varying needs in a large class in modern, open-plan, but rather cramped conditions.

"I felt that it was a bit much for a class teacher to cope with a boy like Mark who is virtually stone deaf in both ears and I've had to fight that, I suppose if I'm honest. Yes I do, perhaps even now, feel it is asking, particularly from somebody who hasn't had any training - I feel not exactly resentful - he's quite easy to deal with. He wasn't

in the very early stages. Oh yes, I've had to fight my own feelings."

(p.93)

It would appear that some of the teachers of the children (eg. Mark and Simon) seemed to be experiencing some difficulties in meeting the needs of their pupils by being unaware of the implications of the hearing loss. Mark's teacher saw herself as already operating under difficult conditions eg. large numbers of children, wide age ranges etc. These are issues which have been raised in the literature (Fisher 1964, Hegarty, Pocklington with Lucas 1981). It could possibly be said that John's teacher did not totally acknowledge his pupil's degree of hearing loss and this is an issue which was raised by Fraser 1964, Paul and Young 1975.

However, two teachers in particular, appeared to show a great deal of sensitivity towards their hearing impaired pupils. These teachers had neither more experience nor more training than the others: their pupils were no less severely impaired. Further detailed investigation might reveal the significant variables which led to this enhanced sensitivity and commitment. Might they be ascribed to personality? As one parent said,

"It all boils down to personalities."  
(David's mother p.36)

Certainly how the child is perceived by the teacher seems to be a most important factor.

"He sees himself as normal and we do as well. It is his own image of himself that is important."  
(Philip's teacher p.98)

Undoubtedly, these two teachers had developed positive attitudes, and Northcott (1973) suggests that by developing positive attitudes, teachers will view the hearing impaired child as a challenge rather than a burden. It appeared to the observer that both these teachers viewed the presence of a hearing impaired child in their class as being a professional challenge,

"I've always thought of myself as a teacher who can't say 'No', especially to anything that sound interesting, a bit

of a challenge, and also something that enlarges your area of knowledge. I think well, it can only benefit you as a person as well to have the experience."

(Philip's teacher p.107)

This premise of the teacher being a participant learner provides great opportunity for exploration of new ways of teaching all children, but, unfortunately, many teachers are unable to view themselves as being in the learning process, rather regarding themselves as "the fountain of all knowledge". What may be done to support and guide teachers to develop awareness, to adapt strategies and to operate a policy of positive discrimination, brings to light various implications, not just for teachers themselves, but also for other professionals concerned with the integration of hearing impaired children.

PART C

GENERAL DISCUSSION AND IMPLICATIONS FOR FUTURE RESEARCH

The aim of this study was to establish links between findings in the research literature and the responses made by the teacher and the parents of specific hearing impaired children. If we examine the illustrative response material and relate it to the review of the literature, numerous implications are raised relating to the integration of hearing impaired children in the ordinary primary classroom. These implications centre around the child, his parents and his teacher, but they also concern a much wider spectrum of the Hearing Impaired service, local education authorities, medical personnel and social workers. Teacher and parental responses were regarded as critical, since these "significant others" form the reference set for the child and have tremendous influence in shaping the child's self-perceptions. If he is viewed positively by his reference set, he will enter into an integrated placement with many advantages, being regarded as a child firstly, and a child with a hearing impairment secondly.

"We want the child to accept himself as he is with the hearing loss representing just one constituent personal characteristic in a host of others. If he can be accepted like this it will make his own acceptance easier."

(Ross, Brackett and Maxon 1982 p.214)

It appears that the emphasis on the integration of the hearing impaired child centres on his educational attainment and social adjustment, and that these factors are shaped, to a large extent, by the child's self-concept. Parental influence on the development of self-concept is decisive, and is inevitably influenced by the ways in which parents are made aware of, and come to terms with, the diagnosis of hearing impairment. The fact that diagnosis is often delayed may increase the difficulties, since parents can be misled into believing that their child can hear. A visually alert hearing impaired baby can deceive a parent who wishes to be deceived, or who does not examine the baby's responses with care.

"I never worried. His speech was developing. In fact, his speech was better than most of his peers. Three other girls had babies at the same time, and we used to get together and compare babies once a week, and his speech was as developed as theirs, and more so than some, and so I had no cause for alarm whatsoever. He seemed very visually alert and we always looked to that. In point of fact, I never thought, 'Oh, he's not hearing properly'. He was just a bright alert

little boy, always looking round, here, there and everywhere. So it was a total shock. A total shock at fourteen months when he was diagnosed."

(Simon's mother p.110)

The review of the literature reveals a certain degree of insensitivity to the needs of parents at the time of diagnosis (Gregory 1976). Nolan and Tucker (1981) indicated criticism levelled at doctors who gave "hasty and casual diagnoses" (p.78). Three parents of children in the group commented on the rather cold way in which they were informed of their child's impairment. For some it was a harrowing experience. David's mother, talking about her feelings at the time of diagnosis, said,

"Oh, I couldn't tell you - absolutely shattered. There was our perfect baby and, although you try not to, I think the fact that he was a boy. It was absolutely shattering. I remember being in the hospital and the specialist telling us conclusively. I don't think he handled that interview particularly well. He just seemed to want to get it over with."

(p.25)

Of course, it should be said that there can be no easy way of shattering parents' dreams of a normal child, but some medical staff possibly might benefit from a counselling techniques programme. When a child is first diagnosed as being hearing impaired, the trauma that parents experience often interrupts the communication patterns between the child and his parents (Northcott 1973). This can be problematic for the professional, since early intervention is obviously preferable, but until parents have reached a degree of adjustment, they will not be able to realise their skills as teachers.

"A child's education begins at birth, and if teaching is at all involved with the learning process, parents are teachers, and what is more important, they are the child's first teachers."

(Grant 1987 p.61)

The review of the literature indicates the need for supportive counselling (Moses in Powell et al. 1985) and time for parents to come to terms with the diagnosis. Luteran (1987) suggests that pace has to be dictated by the parents, and that professionals cannot go any faster than the parents are able or willing to go. This is borne out by the

comments of the peripatetic teacher of hearing impaired children,

It's a very, very long, ongoing process, and you find that people can only absorb a certain amount at a time. Even after a whole year, there are still some very basic aspects of understanding about hearing loss that the parents haven't absorbed."

(p.152)

Simon's mother believed that she took three years to come to terms with the hearing impairment and that she had been helped greatly by the peripatetic teacher of hearing impaired children who had "dragged me from the edge of a nervous breakdown" (p.121). The role of the peripatetic teacher was seen to be a most important one at this stage, and all parents spoke most positively of the support they received from her. Families viewed this teacher as a friend foremost, then as a counsellor, and finally, as a teacher. This raises a further issue of whether, already over-burdened with a large case-load of hearing impaired children attending ordinary schools, the peripatetic teacher should fulfil a role which might be more appropriately met by a social worker.

Certainly, four of the children in the group benefited from having parents who had appeared to understand the implications of hearing impairment, and the support given to these children was most positive. Parents spoke of the need to develop and reinforce language, and teachers spoke of the great support and amount of work done by parents with their children to reinforce and consolidate work done in school. This is contrary to the findings of Connor (1971) who stated that the majority of parents in his sample only carried out a fraction of the activities suggested to them. Parents were prepared to do any amount of work with their children at home if it meant that their child could be educated in an ordinary school (Simon p.114, Mark p.80), although they appreciated that this could involve a degree of sibling neglect (Parfit 1975, Grant 1987, Luterman 1987).

The issues concerning parents would seem to be centred around particular areas, viz. support and counselling at the time of diagnosis, adjustment to, and ability to work through the grieving process, the establishment of realistic expectations, an understanding of the implications of hearing impairment, and an aptitude to view their child as a child firstly, and a hearing impaired child secondly.

If the principle expressed in the Warnock Report (1978) that the purpose of education for all children is the same, is accepted, then the aims of education for all children are the same. Children with special educational needs will then require something over and above that which is provided for their peer group, to compensate, for example, in the case of the hearing impaired child, for impoverished language experience. How the child is viewed seems to be a vital issue. If he is viewed as a child with many similar needs to other children but also with different needs, and if these different needs are understood and accommodated to, then it would seem that his teacher operates the concept of integration as being one of positive discrimination (Dessent 1987, Chapter X).

The aim of an integration programme for the hearing impaired child should be for him to function in the classroom to his full academic and social potential. However, this potential must not be too far significantly below that of his hearing peer group (Griffing 1970, Northcott (1973), and this notion of 'normal' or 'near-normal' seems to be held by the teachers of the group of children being investigated. Mark is the one boy who is experiencing difficulties and he does not appear to be viewed in this way by his teacher. In order that the child's potential might be realised, the class teacher must appreciate the implications of the hearing loss. An audiogram will effectively inform a teacher that a child has, for example, a high frequency loss. It will not necessarily make her appreciate that this particular hearing loss may cause the child to receive a very distorted speech pattern, particularly for consonants. Nor will it make the teacher appreciate the child's inability to use the redundancy of language available to hearing children. An example of this lack of understanding was seen in the response of Mark's teacher to his not remembering the word "isosceles" (p.96). Mark's teacher knew that he was a severely hearing impaired child,

"I felt that it was a bit much for a class teacher to cope with a boy like Mark who is virtually stone deaf in both ears."

(p.93)

but she was not always able to respond appropriately. Why was this so? She had received no specific training in the management of a hearing

impaired child, but neither had the other teachers, some of whom were able to make very appropriate responses. Like most of the other teachers she had no previous experience of hearing impaired children. She saw herself already operating under pressure (Hegarty, Pocklington with Lucas 1981). It may be unfair to focus on her use of one specific word when she was commenting on her situation,

"Well, I must say that it must be part of the training of a teacher nowadays if they're going to be infiltrated into ordinary school, there has got to be quite an extensive training for the student when she goes to training college, and then you've got to think of the aspect of people like me that were trained years ago, so there's got to be some sort of training within the county for people like myself."

(p.94)

and this may have been a slip of the tongue, but it could also indicate a degree of alienation, since "infiltration" is often used in a bad connotation associated with a feeling of insidiousness. Mark's teacher began her interview in a very positive tone, but she became less positive as the interview progressed. Of course, one cannot make any firm conclusions from the use of one specific word, but it does highlight the tenor and feeling indicated in her closing statements.

With the exception of Mark, all the children in the group appeared to be viewed by their parents and teacher as being emotionally, socially and academically on a par with their peer group. Mark's part-time attendance at the Hearing Impaired Unit is seen as an attempt to meet his changing needs and emphasizes the necessity of constant review.

"We should not be trying to fit children to schools but working out individual arrangements best suited to each child. Similarly the question of how well placed a child is educationally needs frequent and on going review."

(Webster and Ellwood 1985 p.7)

The teachers of the children in this study were asked to rate the children in comparison to their hearing peer group. The use of standardised tests was not seen as being appropriate in this instance, since according to Conrad (1979), Salvia and Ysseldyke (1974), the majority of attainment tests are not standardised for hearing impaired children, and neither are tests of social adjustment (Aplin 1985). What was considered to be crucial was not whether the child had made progress on a standardised test, but whether his teacher believed

phenomenologically that he had improved and that he was able to function on a comparable level to his hearing peer group. This is what made the teachers' beliefs so interesting since these beliefs coloured most extensively the responses which were then made to the child.

The attainment and social adjustment of the children in this present study would indicate agreement with the research findings: highly intelligent children with good social adjustment and competent language skills seem to be the most likely group to achieve functional integration. Best (1970) indicates that the higher a child's communication skills, the better his academic performance, and teachers and parents were equally aware of the necessity of developing language skills.

"We have made a great play on increasing his vocabulary. We have long talk times and we speak clearly to him."  
(David's teacher p.41)

and

"There are always complexities of language, there are things he doesn't understand, that he attempts to put in the wrong context. There are so many different concepts which you have got to go over."  
(David's mother p.29)

Teachers and parents were aware of the need to check vocabulary, to correct speech and to pay particular attention to the child's understanding of concepts.

The research of Kretschmer and Kretschmer (1978) and Quigley and Kretschmer (1982) seems to indicate that the best single indicator of the hearing impaired child's command of language is the quality of his spontaneously produced written language. It appears that hearing impaired children tend to make the same type of errors and non-standard usages, referred to as 'deafisms' in the literature (Webster 1986 p.95). An inability to extend sentence sequences is shown in the use of simple sentences of short, rigid construction. The child tends to tackle writing 'sentence by sentence' (Wilbur 1977) showing poor sense of discourse. More content words, eg. nouns and verbs are used with fewer prepositions and conjunctions. Myklebust (1965) claims that hearing impaired children do not tend to use adverbs even at the age of fifteen, while hearing children tend to begin to use them at about nine years of

age. An examination of the writing of the children in the group indicates that, for the most part, they do tend to make the same types of errors described in the literature, and, to a great extent, they are unable to extend sentence sequences.

The teachers in this study rated the children's speech as ranging from normal (John), slightly defective (David, Simon, Philip) to moderately defective (Mark). Since John's hearing impairment was not pre-lingual, his speech patterns were established before the onset of his hearing loss, and although his hearing had subsequently deteriorated, his speech was highly rated by his teacher. Certainly, the ability of the child to be understood by the teacher and to understand the speech of the teacher is critical. Although Mark's hearing loss was also not pre-lingual, his use and understanding of speech were rated only as moderate. He was described by his teacher as something of a loner. Was this an enforced loneliness through his inability to understand others and their inability to understand him? Wells (1979) stated that children learn language through their linguistic interactions with others. Mark was believed by his teacher to be not very well accepted by his peer group. To what extent could this be viewed as something of a chicken and egg situation? As a group, the children can be favourably compared with the sample studied by Jensema et al. (1978) of which 51% had speech rated as very intelligible. The research of Rodda, Godsave and Stevens (1974) indicates a significant correlation between speech, language and social adjustment and also between academic achievement and these three variables, and this is supported by Quigley and Kretschmer (1982).

The class teacher is not the only person within school who will have a very significant effect on the hearing impaired child. The attitude of the Headteacher will be crucial. When asked to comment on the criteria she used when considering the suitability of a school, the peripatetic teacher of hearing impaired children said,

"First and foremost I look for atmosphere and the personalities within the school. I always look at the personality of the Head, because I think the personality of the Head permeates down through the school."  
(p.144)

Parents also commented on the importance of the Headteacher's initial reaction. Simon's parents described how one Headteacher was concerned

more with Simon being happy, rather than his being happy and being stretched educationally. David's mother described their Headteacher's reaction.

"The very first thing the Head said was 'I don't view David as a special child. Every child is special to me - every child has their own special needs.' And I was just very impressed with her."

(p.28)

This is a very important issue: the view the Headteacher holds of the child will be critical even though he may be viewed positively by the class teacher. The philosophy of the school and the policy towards children with special educational needs will be determined by the Headteacher to a very great extent.

Petersen and Haralnick (1977) and Rister (1974), in their research, indicate that hearing impaired children interact better in a small group and also with the teacher than they do in a large group situation. This appears to be another criterion which is used in selection of school.

"Yes, they're closing lots of small village schools now, aren't they, which are, on the whole, far more of an apt environment for young hearing impaired children than larger schools, and yet, they're closing them now."

(Peripatetic teacher p.158)

Webster and Ellwood (1985) and Reed (1984) stress the importance of sound parent - school relationships. This goes much further than relationships with the class teacher, and encompasses relationships with others who have significant influence on the ethos of the school, particularly, as has been mentioned before, the Headteacher. Relationships with school governors are also seen as important: with them may lie the decision regarding admission of children to the school. There seemed to be, in this study, a degree of valued appreciation on both sides. Teachers viewed parents as being very supportive of their children, and parents appeared to value, for the most part, the work of the teachers, although Simon's parents did not feel that his teacher understood the problems (p.130), and Mark's mother thought that men teachers were more sympathetic (p.76). This was an interesting comment since Mark had only had female class teachers, but his mother felt the Headteacher (male) had been exceptionally supportive and the Unit

teacher was also a male.

An important issue which was raised, both in observation periods and in interview, was the training of teachers. None of the teachers interviewed had received any input on hearing impairment in their initial training nor had they attended any In-Service courses. One can appreciate that these teachers had been trained pre-Warnock and that possibly courses specifically concerning children with special educational needs had not been available to them. This situation should not occur with more recently trained teachers, since recommendations concerning special educational needs courses in Initial Teacher Training have been implemented.

The Warnock Report (para. 12. 7. 1978) recommended that all courses of initial training should have a "special education" element. It suggested that this element should be mandatory, and the Report outlined the skills, understanding and appreciation that were required to be developed within schools. However, it could be claimed that the type of "awareness" course which developed in Colleges of Education could reinforce the separateness of special education. What seemed to be more appropriate were courses which were designed to investigate the concept of special needs with emphasis on alternative perspectives and multi-professional relationships. This is very much the approach acknowledged by the A.C.S.E.T. report on "Teacher Training and Special Educational Needs" (1984). The proposals in this report were reinforced by the Council for the Accreditation of Teacher Education (CATE) which stated that proposals for initial training courses had to include coverage of special educational needs on a compulsory basis.

"Students should be introduced to ways of identifying children with special educational needs, helped to appreciate what the ordinary school can and cannot do for such children and given some knowledge of the specialist help available and how it can be enlisted."

(Annex, para. 11 in DES 1984a)

Many institutions are therefore operating what may be described as a permeation model. For this model to be effective, specific objectives need to be established and co-ordination across courses must be arranged, so that the model does not become a piecemeal approach.

So much for initial training: a more worrying concern with the sample group of teachers was their lack of In-Service training. This

was regarded as vital by the peripatetic teacher who mentioned this point frequently in her interview.

"I think teachers don't adapt their teaching strategies because they haven't got sufficient insight into the problems of that child in their classroom, and I think they haven't got enough insight because we, as a service, don't provide enough initial In-Service training for them. I think that it's almost impossible to get across the implications of hearing loss when you are a visiting teacher just going in for a limited period every week ..... . There is only a snatched few minutes before and a snatched few minutes afterwards."

(Peripatetic teacher p.146)

This teacher has a potentially active case-load of over two hundred children spread over a wide geographical area, and is therefore only able to offer limited Inset. She is very highly regarded by both teachers and parents who commented on her professionalism and her total commitment to her job. Is it unfair to expect her to organise and implement In-Service training with the heavy case load she already carries?

Of course other sources of In-Service training are available to teachers eg. "Special Needs in Education" course (E241) at the Open University, one year full-time courses or their equivalent at various training institutions. With the introduction of Circular 3/83 (1983) Special Educational Needs was identified as an initial priority area and a considerable number of courses of one term's duration have developed. However, with the new funding arrangements for In-Service, it now appears that In-Service instigated by schools and local authorities will be more accessible, provided that special educational needs are identified as being a priority area. This may not be the case with the advent of the National Curriculum. Unless co-ordinated approaches to special needs In-Service policy are adopted as in Coventry (SNAP) and Leeds (LISSEN), then similar discrepancies in availability of In-Service training may emerge. Kumsang (1987) also highlights the issue that should Hearing Impaired Services become amalgamated into a generic service for special educational needs, then many Heads of Hearing Impaired Services believe that the needs of hearing impaired children will be subsumed by the needs of a much wider "umbrella" service with serious implications for funding and resources.

"The interests of the hearing impaired would be swamped because it is a minority handicap."

(unidentified Head of Service, in Kumsang ibid p.114)

In summary, it may be said that the analysis of the responses made by teachers strongly suggests that an important variable in operation in schools was the ability of the teacher to focus on individual and often complex needs, and this was not a matter of skill and training but had much more to do with attitudes, perceptions and philosophy. The hearing loss was regarded as relatively minor in comparison to these other variables.

All the children had been issued with radio aids and, indeed, it is most probable that none of them would function as they do without the use of those aids.

"Radio aids have made an invaluable contribution to the successful participation of hearing impaired children in mainstream classes."

(Webster and Ellwood 1985 p.47)

However, the maintenance of the aids was very problematic and three parents identified this as a major problem, as did the peripatetic teacher.

"It's absolutely appalling. As you know they are very prone to breaking down and most of them are out of action for as long a period as they are in action. So we, as a Service, spend so much time in trying to keep them operable. I should say that out of a ten week term, may be we're lucky if we get six weeks in operation. That's optimistic, that is. Some of them are out of action rather longer than they are in action."

(Peripatetic teacher p.149)

These comments can be supported by the notes made concerning David's radio aid (Appendix 18). The implications of a child being without a hearing aid for any length of time are grave, but, without a technician to maintain and repair hearing aids locally, the breakdown of an aid necessitates it being sent to London for repair. This obviously greatly adds to the length of time when the child is without his aid.

"It was away for repair at the beginning of term, and when it's away, it's away for a long time. He was without it for half-a-term when he desperately needed it. He desperately needed it and it was such a long time. Had that been at the secondary school it's going to be even more vital - you know

- as he's learning French and all the new vocabulary that's going to be thrown at him, it would have been catastrophic."  
(Simon's mother p.120)

It seems to be a matter of urgency for local technical support to be available for the maintenance of aids together with the provision of spares. This Hearing Impaired service has access to one spare Connevens. Mark's mother described how, in desperation, after having a new Viennatone replaced by another which also did not work, she contacted the Blue Peter Appeal Fund from whom another Viennatone has been borrowed. Parents mentioned the technical facilities available to children in a neighbouring local education authority, and, certainly, this is a most important point to consider. If radio aids are recognised to be so crucial in helping the child to profit from an integrated placement, it follows that the same provision should be available to all children, regardless of where they live.

Another issue raised by parents and teachers was the lack of awareness of the general public. Great emphasis was placed by interviewees in replying to the final question of the interviewing session of the need for awareness of the implications of hearing impairment,

"I'd give every person in the world an instant apprehension of what hearing impairment was and all its implications. Everybody would understand it and I think from then on all the teachers would understand it, the parents would understand what hearing impairment meant. Everyone would understand what it was with the same degree of clarity that people understand that a child in a wheelchair cannot walk."  
(Peripatetic teacher p.158)

As the handicap can be unobtrusive, education of the public will be problematic but efforts by the National Deaf Children's Society and the British Deaf Association are having some success. A very positive effect of integrating children will be that hearing children will be exposed to children who are different from them, but who also are very similar. Through this exposure, greater awareness, understanding and appreciation will be fostered.

It may be said that the review of the pertinent literature which has been embellished by the illustrative material, points to the following basic criteria which might enhance the possibility of achieving functional integration for many hearing impaired children:-

1. Teachers' awareness of the implications of hearing impairment and ability to accommodate appropriately to the needs of the child.
2. Sensitive parental guidance and support at diagnosis and at other necessary times during a child's education eg. transition to secondary school.
3. Emphasis on language development as an on-going factor.
4. Availability of contact (if wished for) with other families.
5. Appointment of social worker for the Deaf to support families.
6. Early intervention and provision of hearing aids. Availability of radio aid when required.
7. Local access to technical services.
8. Whole school approach of valuing the child as he is, focussing on the hearing impairment secondly.
9. More emphasis on what the hearing impaired child brings to the learning situation.
10. Inappropriateness of the use of standardised tests for hearing impaired children (the reader's attention is drawn to an interesting article by Swann (1987) concerning the proposals put forward by the Minister of Education in the Great Education Reform Bill, which has now become law).
11. Availability to teacher of information concerning child and ready access to Hearing Impaired Service.
12. Frequent review of placement.
13. Appropriate, well-planned and implemented Special Needs components in Initial Teacher Training.
14. Availability of relevant In-Service courses.
15. Local Education Authority established policy towards Special Educational Needs.
16. More staffing within Hearing Impaired Service to provide realistic case loads and more pre-school provision.

This very small-scale investigation illustrates that, although positive progress has been made in the integration of hearing impaired children, which has not been brought about solely through legislation embodied in the Education Act 1981, much greater commitment to the philosophy behind the Act, must be forthcoming, both locally and nationally. Whilst the needs of many children are apparently being met by caring and committed individual teachers, both in the classroom and in the peripatetic

service, in-depth investigation would most probably reveal that much more appropriate provision could be realised if the above criteria were accepted by individual L.E.A.'s and Central Government.

These same criteria are all potential areas for further research, as well as such areas as multi-professional approaches and educational issues eg. the understanding of the reading process. The majority of them, however, necessitate extra resources which are linked to the basic resource of finance, which, again, is unlikely to be forthcoming in the present economic climate. Until that position changes, the concept of integration may not be one of growth, but merely financial expediency, relying on the goodwill of individual teachers and the commitment and awareness of individual parents.

Thus, in this instance, the successful functional integration of the hearing impaired child, may at present be thought to be due to the parents and family to whom the child is born, and to the teacher in whose class he finds himself, rather than to any clearly established policies of provision. Therefore, it would appear helpful to attempt to identify the attributes of the optimal conditions in which a child may flourish. In considering the family situation, Luterman (1987) suggests:

"I think the ultimately successful family is able to get the deafness in perspective and learns to enjoy the youngster as a child who happens not to hear too well. The professional must learn to respect the boundaries of the family and try to repair those boundaries damaged by the deafness by always working to enhance the self-esteem of the family members."  
(p.104)

When asked to describe the perfect teacher, the peripatetic teacher responsible for this group of children commented:

Well, she's a warm, caring, cheerful teacher, very highly competent. She's got the caring side, a very, very competent teacher in herself. She never misses an opportunity to expand a child's understanding of language, uses every little situation that crops up to illustrate a point. In terms of her attitude to the hearing impaired child, she doesn't single him out, she's not over-protective towards him, but she's very concerned about him as a person, always asking questions about how she can do better."  
(p.149)

Certainly, in this investigation, critical variables which need to be met to achieve functional integration appeared to be, positive

attitudes, an awareness of the implications of the hearing loss, together with the will and an ability to meet the needs of the child, rather than a focus on the child's individual deficiencies.

Perhaps it is fitting that the final comments in this study which encapsulate the needs of the hearing impaired child should come from a so-called non-professional ie. a parent.

" ..... and the other one would be that there would be such a greater awareness about deafness that a child is not deaf and dumb and it shouldn't be a stigma at all. It tends to be because it's not an obvious disability, the only signs of it are a phonic ear or hearing aids. There are a lot of prejudices and misconceptions about deafness. The other thing would be for the finances and the backing to be there ..... Immediately it's diagnosed, the resources should be there. You can imagine the parents who have not had the benefit of the education that we've had. They may not ask the questions and they may not get the back-up that we've had. If it's true for David, it's true for all hearing impaired children."

(David's father p.40)

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