

PART 021 719

THE ADJUSTMENT OF THE
DEAF TO A HEARING WORLD.

THESIS SUBMITTED IN PART FULFILMENT OF
THE DEGREE OF M.A. IN THE DEPARTMENT
OF PSYCHOLOGY

by

ZANUNISSA NAGDEE B.A.

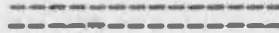
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P R E F A C E.

It is to be noted that the case histories which appear in this thesis refer to Non-European adults and children.

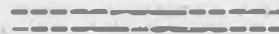


The writer wishes to thank the staff of the Dominican School for the Deaf at Wittebome with whose ample assistance she was able to write the thesis. They allowed her to be present during lessons, attend staff discussions, consult the records of pupils and borrow books and pamphlets. In addition it was through their help that she was able to visit the homes of past and present pupils. The parents of the deaf pupils and the deaf adults with whom the writer came into contact were very helpful and for this she is grateful.

The writer wishes to thank the branch secretary of the National Council for the Deaf at Woodstock who allowed her to attend the Social evenings.

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Finally, it is through the generous co-operation of many deaf children and adults that she was able to have an insight into their problems and difficulties.



C O N T E N T S.

- I. Introduction.

- II. (a) Difficulties in communication.
(b) Intellectual difficulties.
(c) Social difficulties.
(d) Vocational difficulties.

- III. A Programme for Better Adjustment.
 - (a) The public.
 - (b) Pre-school training.
 - (c) The school-going child.
 - (d) The deaf adult.

Index of Authors.

INTRODUCTION.

The term "deaf and dumb" seems to indicate that the two handicaps go together, or that it is a double handicap and that dumbness is the unavoidable effect of deafness. But it is rare for a deaf person to be dumb too, if you think of dumbness as being a physical defect. The deaf person unless he is taught, is "wordless". If the deaf person is wordless his perception of the world around him is restricted and may even be erroneous. A vocabulary is a necessary factor and the intelligence cannot develop to its fullest extent without it. It is probably because of this that the deaf have in the past been thought of as being mentally deficient. Blackstone, in the English common law, classed the deaf legally with idiots and lunatics. They have also been looked upon as being sources of amusement to the general public who consider their gestures and uncontrolled vocalisations as being clownish antics. The most important consequence to the deaf person himself, is his lack of social contact. He lives in a very limited world. In bygone days the best that could be done was to give them refuge from the world. Now the aim is at fitting such people to take part with hearing people in an ordinary environment.

It is because of the numerous misconceptions regarding the deaf that the average hearing person has such a lack of sympathy and understanding for those with defective hearing. Some investigators attempting a standardisation of an intelligence test, told the writer that the average person frequently answered the question: "why is a deaf person

usually/.....

usually dumb?" with the answer : "because the organs used for speech and hearing are connected in the brain". Even among the relatives of the deaf person there is often an intolerance of, and a disinterest in their handicap. The writer was asked by the guardian of a deaf girl of 21 why she had been unable to speak before she had gone to school although she could speak almost normally now. The guardian did not realise that nobody at home had made any effort to help the little girl to acquire speech. It very often happens among non-European parents that they look upon a deaf child as being a punishment for their own misdeeds especially when the child is illegitimate. Unlike the majority of European parents, the Non-European parent seldom spoils the deaf child who is considered as being a burden and an economic drain on their meagre incomes.

A possible reason for the general public not being sympathetic is because they cannot realise the state of the handicap unless they have lived or worked with a deaf person. The ordinary person cannot recognise the impairment of the deaf person merely by looking at him, because the defect is not visible. Unless the deaf or hard-of-hearing person is a good lipreader, he may miss a great deal of the casual conversation of strangers. For this reason the partially deaf should be encouraged to wear their hearing-aids in public. Some people still believe that a person who is deaf will hear provided you shout loudly enough. The public also tend to think that deaf people are all alike. The employer who has dismissed a deaf person for negligence or unsatisfactory work, will not be likely to employ another deaf person. There is also a prevalent idea that handicapped people have a "sixth sense" in order to adapt themselves/....

themselves to their environment. Many people talk to the deaf in pidgin English not realising that this is going to add to the difficulty of lip-reading.

The terms "deaf" and "hard-of-hearing," as they are used in the following pages may be defined as :

The Deaf : Those in whom the sense of hearing is non-functional for the ordinary purposes of life. This general group is made up of 2 distinct classes based entirely on the time of loss of hearing :-

- (a) The congenitally deaf - those born deaf.
- (b) The adventitiously deaf - those born with normal hearing but in whom the sense of hearing became non-functional later through illness or accident.

The Hard-of-hearing : Those in whom the sense of hearing, although defective, is functional with or without a hearing aid.

R.M. Greenman in an article complains that the public is interested in sensationalism. They do not understand what is being taught in schools and are not willing to devote the effort needed for the understanding of commonplace problems. Another writer Loy. E. Golladay in an article "Distorted publicity on the deaf", says that the public reading articles in newspapers, expect a great deal from educational institutions and when those hopes are not forthcoming they consider the failure due to mental incompetency on the part of those with defective hearing. The public usually does not distinguish between grades of deafness. Furnishing hearing-aids to the completely deaf would be illogical. Deafness can also come into existence at different age levels, for example, the deafened war-veteran and the deaf child is often described as "perfectly normal in all other respects", whereas "normality" cannot be true/....

true in the psychological sense. The newspaper articles give the impression that the sole barrier to the outpouring of ideas is lack of speech - all that needs be done is to give speech. Actually the deaf child may be five or more years behind a normal child in language development and general knowledge. The acquisition of speech is not going to alter this basic difference. As regards "finger spelling" it is not "outlawed" as some writers suggest. Educators have realised that the method must be fitted to the child and not vice versa. Different opinions from Binet & Simon to the late Dr. D.G. Patterson and Dr. Helen Thompson all uphold this view. The notion that a child can become "normal" is not only false but harmful. It is not so much a matter of better lip-reading of the deaf but the nature of lip-reading and the unreadable speech of many persons. The deaf lipreaders realise this and their natural dignity lead them to avoid imposing their handicap on the public more than is necessary. Molly Sifton in an autobiographical sketch says : "It is better to go without a little information at the time than to lose a promising companion." The adjustment of the deaf to the hearing world is best accomplished in the development of their self-sufficiency and in seeking common interests and grounds on which to meet hearing friends without the need for excessive conversation.

Apart from the degrees of hearing loss as measured in decibels, one can also distinguish, according to Dr. D.A. Ramsdell three psychological levels of hearing. These are:-

- (1) The Social level, e.g. the word "tree" stands for a tree growing somewhere.
- (2) The Symbolic level, e.g. "buzz" of a bee is a signal to expect a bee.

(3).....

- (3) The Primitive level : which is an auditory background for e.g. hearing but not listening to the traffic moving outside.

Hearing is a combination of all three. We can hear on the three levels simultaneously but they vary independently and each one can predominate.

The most basic is the Primitive level. Impairment or loss of the primitive or "affective level" is fundamentally connected with emotional difficulties of the deaf. The feeling state established by the primitive level is characterised by a readiness to react as well as by the comforting sense of being part of the living active world. People who lose their hearing in later life find it difficult to adjust themselves to the "deadness" of their environment.

On the second level sounds act as warnings playing an important part in the behavioural adjustment of the individual. Lack of hearing leaves the person uninformed of what is outside the visual field.

On the social level sounds act as symbols. Animals as well as men depend on sound for meaning of particular phenomena, but men use sound in abstract ideas as well. By the use of language, man's sphere of influencing and being influenced is enormously increased and made more complex.

A lack of speech may not be due only to defective hearing. A number of children referred by social workers, doctors and teachers were found not to have an auditory impairment but to have aphasia and allied disorders. It is occasionally found that a child fails to respond to normal acoustic stimulation, or a child cannot express himself through the medium of speech. Certain technical terms are used for designating the defects which may develop. In the case of a brain lesion or injury, the speech defect represents a form

of/.....

of "dysarthria"; if there is no speech at all, we speak of the disorder as "anarthia". Where the intelligence is unimpaired, the speech may vary from a complete lack of speech to baby-talk or dyslalia. Because these disorders have manifestations so closely akin to that of deafness, it is imperative that a child should not be classified as "deaf" until a thorough examination is made by an otologist.

DIFFICULTIES IN COMMUNICATION.

(1) SPEECH AND LIPREADING.

The child having a lack of speech caused either through being born deaf or from becoming adventitiously deaf at an early stage before speech habits have been established, is normally known as a "deaf-mute". His dyslalia is so marked that his speech is wholly or largely unintelligible. Since he cannot hear sounds, he imitates them imperfectly or not at all, and his speech consists of a number of primitive sounds uttered in a toneless, monotonous voice, bearing little resemblance to the articulate speech of the normal child. Such a child lacks the auto-critical power of self-analysis and self-consciousness which is associated with normal hearing, and he must receive special training not only in lipreading and phonetics but also in the process of voice placement and voice-building. He must also become accustomed to the mechanical product of speech sounds and in the order and sequence of words. In English, the spoken words have little resemblance to their written form, so it is not sufficient to be able to read, to write and to speak. The writer has watched a nursery-school teacher trying to get across the meaning of the word "knee" to her pupils. The idea could not be demonstrated by a "word-picture", i.e. the visual representation of the printed word on a card together with a picture of a knee. It was very difficult to explain to the children that the "k" was silent as they were proud of their ability to produce the phonetic sound for it.

The mastery of speech depends upon the training of the memory functions associated with visual, auditory,

motor/....

motor and kinaesthetic impressions, so that the sight of a word in print, its appearance on the lips when being pronounced, and the various associations which have been built up around that word may be sufficient to set in motion the memory factors necessary to the actual reproduction of the word by the individual.

The acquisition of speech is a psycho-physical process in which associations are built up between auditory, visual, kinaesthetic and motor sensations and the images which are impressed on the mind of the child. If the stimuli occur with sufficient intensity or frequency, they make an impression upon the plastic mind of the young child. In the first few months of life, the behaviour of a deaf baby appears to be much like that of any ordinary child. Both are wordless, speechless and unable to comprehend speech. Both use their voices for crying, gurgling and making other sounds. This vocalisation is limited to physical experiences such as hunger, comfort, discomfort, pain and sleepiness. It is just one of the components of the mass behaviour of the infant.

After the first few months there is a difference between the baby who is deaf and the baby who hears. The main stages in the development of responses to sound of the hearing baby (A) and the deaf baby (B) is as follows:-

(1). A. both hears and feels the sounds he makes when he vocalises. B. feels but cannot hear his own vocalisation.

(2). A. hears the modulated voices of other people and many other sounds made in his environment. B. cannot hear any sounds, but he is sometimes aware of a loud sound that he perceives through his sense of touch in the form of vibrations.

(3). A. learns to associate meaning with the sound of voice, that is, he gathers messages from the sound of his mother's voice as well as from her expression and gestures. B. learns to associate meaning with facial expression and gesture only. He has to gather messages from fewer clues than A.

(4). A. has frequent opportunity of hearing distinctly the same words over and over again, and of associating them with their meaning. Casual glimpses of words on the lips of other people are too vague and too few to enable B. to

attach/.....

attach meaning to them.

(5) On account of (4) A. begins to use words in his thinking. Because of this (4) B. continues to do his thinking without using any words.

(6) When A. begins to talk he soon learns to rely upon words to make himself understood. He tends to drop the use of gesture. As maturation occurs, B's needs of a mode of communication becomes urgent. He lacks words and he tends therefore to use gesture more and more to express his wants and to look for gestures from other people.

(7) Comprehension and use of speech develop steadily through B's contacts with other people. B's communications by gesture and vocalisation are much more limited in range of ideas and numbers than A's.

(8) By the age of about $2\frac{1}{2}$ years, A. can both talk and understand much of what is said by other people. By the age of $2\frac{1}{2}$ years B. will only attempt to express his immediate wants through gesture accompanied perhaps by cries and shouts; very often he will be understood only by those people who are familiar with his code of behaviour.

(9) A's growing ability to use words in thinking, in comprehending speech and in expressing his thoughts, facilitates and stimulates his mental and social development. B's mental and social development are hindered because of his lack of words.

(10) By the time A. is 3 years, his speech enables him to express what he wants to say, understand much of others speech and to ask questions. B's gestures serve him as a limited or more or less satisfactory means of communication so long as material wants are in question. Gesture cannot act as an adequate form of stimulation for his mind nor for the development of personal-social relationships with other children or adults whose accepted mode of communication is speech.

Speech learned by artificial training is never normal, but it can usually be understood by the associates of the deaf person. The quality of the speaking voice of the hard-of-hearing person is an important factor in his rehabilitation/....

rehabilitation. A majority of persons handicapped by acquired deafness, retain intelligible speech only if they give thought and effort to the subject from the onset of the impairment. This applies to those with only moderately severe losses as well as to the severely deafened. It is important to realise that the hard-of-hearing person almost never realises his own voice defects.

"Voice imperfections developed by hard-of-hearing persons usually vary according to the degree and type of hearing impairment." (Ewing, I.R. and A.W.G.: The handicap of Deafness). A person with middle-ear or obstructive deafness may be able to hear and to criticise to some extent the quality of his voice and pronunciation. Therefore he can do much by his own unaided efforts to prevent a deterioration in the intelligibility of his speech. He may, however, have great difficulty in estimating the loudness of his voice. When normally hearing persons are in noisy places or where traffic is heavy, they raise their voices to make themselves heard above the noise. The person with middle-ear deafness also hears some of the external noises but they do not sound nearly so loud to him. When he raises his own voice, he experiences, mainly through bone conduction, the effect of shouting. The accompanying sensation is very unpleasant. Unless this process of adaptation of the volume of his voice is consciously corrected, the person with middle-ear deafness is apt to talk lower and lower until his speech is hardly audible to persons of normal hearing.

For many years now there have been different opinions about the type of communication the deaf should be taught to use. There are many keen oralists who will not

tolerate/....

tolerate the use of sign-language. There are still schools which use the finger-alphabet and sign-language exclusively. Many schools which use both the manual and oral method, have found that this proved most effective. At the Wittebome school the oral method is used as far as possible but since so many pupils come to school at a very advanced age, the combined oral-manual method has also been found satisfactory. The drawback here, however, is that the pupils learn the manual symbols so much more rapidly, and unless watched, they use no other means of communication among themselves.

It is absolutely necessary for the deaf to attempt some speech if they wish to communicate with the hearing without resort to writing. Oral methods, too, aim at making the deaf person appear normal.

It is probable that the child coming to school already has a vague idea of the connection between speech (verbal communication) and lip-reading. He may be able to lip-read a few familiar phrases and words, not understanding them as being language, but associating the form of the mouth with actions or things. There are many difficulties which beset the lipreader. He must have keen eye-sight and the speaker must be clear. There is the great difficulty with homophones. Many words sound alike but are usually different in spelling and meaning. These can only be distinguished from the context. For example, "f", "v", "t", "d" and "n" are revealed by the same movement of the lips and it is impossible to distinguish between "fat", "fan", "vat" and "van" except by context. Another difficulty arises from sounds which are not revealed at all by the movements of the mouth and must therefore be interpreted by the context. The aspirate "h" is in this class/....

class. The words "up" and "hub" are indistinguishable except by context since there is no discernable movement involved in the "h" sound, and "p" and "b" are both revealed by the same movement. Other factors that make lip-reading difficult is the poor enunciation of many speakers, the difficulty in seeing mouth movements when the speaker does not face the light, and the lack of contextual significance in proper names and unfamiliar words.

The writer was surprised to find that most of the deaf adults, even those who had been to school for ten years or more, had relapsed so far that they were unable to speak even a few intelligible words a few years after leaving school. It is even a greater pity that many of the hard-of-hearing because they cannot afford hearing-aids, are in exactly the same position. A strain is of course imposed upon those who attempt to speak and lip-read, but the compensation of being able to participate in the affairs of hearing people seem to outweigh this. The reason for this lack of speech is probably due to insufficient stimulus being provided by the relatives and friends who do not understand the state of the handicap.

(2) SIGN LANGUAGE.

Apart from lip-reading and speaking, other means of communication are used by the deaf. The manual alphabet and gesture is almost exclusively used by the deaf amongst themselves. Even the kindergarten pupils recognise their names as spelt by the manual alphabet. The whole word need not be spelt for the thought behind it to be recognised/....

recognised by another deaf person. When the person becomes proficient at the manual alphabet, he does not see each word separately but gets the idea behind the sentence or phrase immediately, just as it happens in reading. The telegraphic alphabet (morse-code) is sometimes used as a means of communication. The advantage of this is that it can be used with the blind as well since the vibrations can be felt through the tactile senses.

Sir Richard Paget in a paper entitled, "The Education of the Totally Deaf", commented on the effect of generalised pantomime which he said was a blind alley. A "systematic sign-language" was being evolved in which each sign is the equivalent of a spoken word. An oral teacher sent to learn this sign-language learned 900 signs at the rate of 240 signs an hour. She could demonstrate after a period of instruction lasting 8 hours, one of Edmund Dulac's Russian fairy stories. A systematic sign language, he concluded, would be incomparably easier to acquire than any spoken language.

(3) DIFFICULTIES WITH DIFFERENT LANGUAGES.

Schools for the deaf generally teach through the medium of one language only. In the Cape Province there is an Afrikaans section at Worcester and an English section at Wittebome for non-Europeans. There are at present over 300 pupils both day and boarding children at Wittebome. The majority of these are however, not English-speaking. Many of the African children coming from as far as Northern Rhodesia are not only unacquainted with English but also have no knowledge of each others' mother tongues. Even after having been at school they are still unable, except
by/....

by gesture, to communicate with their people because their parents are usually illiterate and very often cannot speak English. With the Coloured children the home conditions are more favourable. Although most of them come from Afrikaans-speaking homes, the families do attempt to speak to them in English. There is also usually someone in the family or neighbourhood with whom they can communicate by writing.

(4) RESIDUAL HEARING.

Many people who cannot hear all but the very loud sounds, benefit by wearing a hearing-aid. It must not be expected that a hearing-aid will restore hearing to normal just like a pair of spectacles may restore clear vision. The hearing-aid only helps to make use of what hearing there is left.

With hard-of-hearing pupils, the hearing-aid is used in addition to lip-reading to teach speech. The rhythms of the sentences are much easier to follow with the hearing-aid and pupils having residual hearing are much less monotonous in the use of tone and pitch of their voices.

The pupil who begins using a hearing-aid is taught discrimination between sounds. The normal infant at first does not recognise the differences between sounds. He must learn this recognition by stages. At first the infant builds up gross discriminations. Thus he learns to distinguish affection from disapproval long before he understands any of the words spoken to him. Later he makes finer distinctions and separate sounds take on meaning. These sound patterns are accompanied by experiences to which he must adjust. He finds that the control of his world/....

world is increased as he learns to sort sounds more effectively. The sounds are substituted for things and actions to which he has already been conditioned. In the same way the person who first puts on a hearing-aid does not discriminate between sounds. He does not hear these separate sounds but only a vague noise. He has to be taught to listen for each separate sound while at the same time he is taught to lip-read.

The advantages of the combined lip-reading and hearing method is obvious. The child can correct his own speech merely by listening in to himself while standing in front of a mirror. As he develops hearing acuity, he will compare the quality of the sounds he makes with those he hears. An amplifier arrangement used for a small group of pupils, encourages them to talk to one another. They readily learn to modulate their voices for each others' needs. Collective practice helps them to understand that which is difficult for most young wordless children who are deaf to realise - the universal vocal character of speech. Listening to music and singing is always welcomed by partially deaf pupils and it also achieves a practical purpose of making them aware of rhythm and the quality of different notes. The correct stress or accent on words is best taught in relation to rhythm. Severely deaf children have two difficulties with unstressed syllables in a word, for they are often not visible to the lipreader because their duration is so short, and they fall below the level required for intelligibility. The word "boiler" for instance may appear as one syllable only. This difficulty supplies a strong reason for the constant and close association of written and printed words with their heard/.....

heard and lipread forms.

(5) THE IMPORTANCE OF EARLY TRAINING.

No matter which method one is going to use in teaching the deaf, deafened or hard-of-hearing person, it is important that he begins his education as soon after the onset of deafness as possible. It frequently happens that because of illness or accident, a person who has already spoken quite fluently for a number of years suddenly loses his hearing. It is important that he does not lose his speech as well through disuse of his voice. For the adult person who knows he is gradually losing his hearing it is also imperative that he face his future impairment and immediately begins lessons in lip-reading.

One of the chief difficulties at the Wittebome School for the Deaf is the lateness at which many children are admitted. Families do not wish to send their youngsters so far away from home, so that although the school accepts children from 3 years of age, generally only the local children attend the pre-school classes. Again, many of the families are not aware that something can be done for their children until they are much older, or the children when they are already at school become deaf through some disease such as meningitis or scarlet fever. The importance of sending the deaf child to school immediately may be seen from the consequences of the following cases.

Both these children (A and B) became deaf through having scarlet fever, but A. lost his hearing at about the age of 3 years and B. lost his hearing at 6 years of age.

A. was sent to the school soon after his recovery. In contrast to the other infants at school he enjoyed
talking/....

talking and babbling to himself. This was probably a combination of his verbal activity before his deafness since he was an only child. He still used words to ask questions and made his wants known. He used gesture also but his mother reported that she found nothing unusual in this as he had used gesture previously. She had noticed, however, that he was using his voice less than formerly. His mother seemed to have devoted a considerable amount of attention to him specially since his illness for he missed her a great deal in the beginning. Later he settled down and was soon a favourite of the teachers and older pupils.

A. is now 6 years old and although he is in the elementary class, he is doing much better than the other children of his age. Unfortunately he picked up the habit of signing and can even spell quite a number of words, including his own name by means of the manual alphabet. Since he knows that signing is frowned upon and likes pleasing his teachers, he communicates with them orally. His mother is overjoyed by the fact that they can understand and communicate with each other. He is a day pupil and has many little companions in the neighbourhood. Everybody who knows of his impairment, remarks on his normal behaviour. His speech to the casual listener will appear indistinguishable from the normal. He is fortunate in having a comfortable home and helpful parents.

B. at 6 years spoke quite fluently. When he lost his hearing as a result of illness, he continued speaking for a while but this quickly diminished until he used only single words. His family were not aware that he had become deaf until some time had elapsed. He is the
third/.....

third of five children and his mother was unable to pay much attention to his needs. He continued going to his old school although he was not making any progress. In the meantime he had ceased talking altogether and resorted to using signs and gestures. He became extremely shy with his schoolmates and did not join in their games because they teased him.

Three years later he was sent to the school at Wittebome. It was found that he had no useful hearing left. During his first year he made very little progress and few friends at school. This is his third year at school and although he uses signs and gestures, his actions are not spontaneous. He is too shy to lip-read except in class and since he does not mix well, he is not efficient with the manual alphabet. His teachers find him very obedient but they would prefer him to be less withdrawn. His speech is practically non-existent. B. is quite good at arithmetic and excellent at drawing and handwork. He will probably do well at his vocational training. His best means of communication is by writing. Unfortunately his parents are not literate but his two elder sisters are used as interpreters. They speak Xhosa at home. His favourite pastime is drawing and reading comic-books. His mother finds him a very useful help around the house. He earns a little money by doing odd jobs in the neighbourhood.

INTELLECTUAL DIFFICULTY.

(1) READING AND WRITING.

There are two ways of reading - the one is reading aloud where the reader may not be attempting to grasp the meaning of the words, and reading silently where the reader attempts to gather the ideas expressed by the printed word. The latter is of course, the more important since the writer of the article is trying to communicate his message. Reading aloud is nevertheless part of every normal child's school curriculum. Reading is a form of specialised linguistic skill. At the age of 5 years, the ordinary child already has a vocabulary of approximately 2,000 words. He understands what other people say and is able to express his own thoughts and to ask questions. There are differences in the ability of children to understand language and to use it for their own purposes, but by the time the child reaches school-going age, he has already acquired the basic words and understands their meanings. On these naturally acquired powers of oral communication are built up the two linguistic skills which have to be taught, viz. reading and writing.

When the child starts reading, he must first learn the connection between words in print and words already used in talking. The age at which children should begin to read has been widely debated but the best age is when the child is "ready" for it. The age in the average child is about 5 years. The home plays an important part in the motivation of the child to attempt early reading. Many intelligent children from homes where they have been encouraged/....

encouraged to read are able to do so before entering school.

The aim at teaching deaf children to read is basically the same as for normal children. They are thereby encouraged to share the thoughts of others and enter more fully into the life of a modern hearing community. But it is not only necessary but essential for the deaf child to be taught the art of reading. It is impossible in lipreading to see many of the words even in carefully spoken speech. Many of the smaller words like the prepositions and conjunctions often escape the lipreader and these can be gained from the complete pattern found in reading.

Until they see the written form of words, deaf children's experience of language is built on the fleeting, incomplete patterns gained from lipreading and partial hearing. Through hearing others speak, normal children gain complete patterns of speech but the deaf child can only perceive a number of disjointed words and phrases. He has to gather meaning from imperfect clues. For example, a normal child would hear the sentence, "Come and play on the swing in the garden", but the deaf child would probably only hear "Come, play, swing" and perhaps "garden". Yet he may run to the swing just as the hearing child would.

The deaf child's rendering of the sentence would probably be something like "Um play 'wi-", though probably intelligible in its context cannot be regarded in itself as a satisfactory expression of conversational English. When the child has learned to read, the printed forms of the words will make clear the parts not seen in
the/....

the lip-read version. His hold on complete conversational language is made firm, and as he comes to know the phonetic value of the vowels and consonants in speech lessons, and links them to experience in reading, his skill in the use of articulate speech will be extensively increased.

The deaf child learns to read at the same time he is learning to talk, and goes through a different experience from the normal child, who learns to read after he has become able to talk quite freely. This applies especially to reading aloud. To the deaf child, reading aloud offers more difficulty than to the hearing child because, quite apart from whether he understands the sense of what he reads, he is using a form of motor skill i.e. control of speech organs which is still new to him and which he must learn without the help of perfect hearing.

Modern methods take note of this fact. Lessons in reading aloud can be useful as a speech exercise, but the first reading lessons and those which are most important at the later stages are silent reading, so that the pupil may concentrate on gaining knowledge and satisfaction from the meaning of what he reads.

The suggestion has sometimes been made that the deaf child could be educated mainly on the foundation of reading and less through lip-reading and speech. Against this there is the fact that even in the child who has never heard, there is a very distinctive urge to talk.

Writing, as a mechanical ability, is not very much different from writing of the normal school child. Most of the children enjoy their writing lessons since it is much less of a strain to copy the words from the

blackboard/....

blackboard than to communicate orally. New words are usually introduced to a class through placing it in written sentences consisting of already familiar words. Writing letters and stories are encouraged, but these generally lack spontaneity and imagination. There are some of the deaf, however, who have produced some fine literary achievements. The cause of unoriginal writing is the dependence on a limited vocabulary.

(2) LANGUAGE AND THOUGHT.

We can recognise that individual deaf people must possess different traits, or kinds of ability in different degrees. Good verbal aptitude is invaluable to anyone who is deprived of normal hearing. The deaf boot-repairer needs to read and write, and to communicate with his customers. That is a very poor minimum. To enjoy the opportunities that are open to him, to be an intelligent citizen, and to share the life of a modern social community, it is necessary to understand something of the constant changes that in a complex civilisation, affect all its members. Personal contact, in free conversation, is the main channel for this process of assimilating knowledge and varying opinions. Reading is only a supplementary means for the majority of people, and personal experience of events is strictly limited by time and place. Ultimately we are faced with the question of how far deafness, either from birth or contracted later in life, affects the process of thought.

There is a young man known by the writer who plays a remarkable game of cards, but does not know the names of the cards nor can he count by any ordinary means. Apparently he had learnt to play by watching others.

Very/....

Very little has been written about the mental processes of this type of person.

The mental development of a child who enters school, wordless at the age of 5 years, has taken place without the help of speech and all the vital help which speech gives to thought. The behaviour of the child is noticeable. Thoughts seem to be discontinuous judging from the flitting of interest from one object to another. Visual experience is proved to be important to him when he shows that he has observed details which the normal child would almost certainly overlook. But he has little power to anticipate future events.

Like Helen Keller, the born deaf child may learn later to describe in speech or writing, experiences which he had before he learned words, but there is always the certainty that he is telling of a speechless past in terms of his subsequent education and training.

Before speech is taught, mental development must be taking place but on abnormal lines, and so also in the earlier years of schooling, unless and until the level of attainment in language taught at school is adequate to the child's needs in all aspects of daily life.

There are two sources of evidence to show that normal thinking is intimately dependent on proficiency in the use of one's native tongue:

(1) Stern has traced the way in which progress in learning to talk leads to progress in mental development and vice versa. When he has learned to recognise and to remember the word "table", for instance, the young child has gained a symbol and a nucleus with which his
experience/....

experience of all sorts of tables can be associated or generalised. His knowledge of tables is acquired in the first place through the senses of sight, touch and possibly taste and smell (if he licks the polish). The word is a kind of shorthand symbol, in which all his experience and all that he may obtain secondhand through conversation of others in the future, is gathered up. It is a much more efficient way of remembering than if the child were forced to rely on any less definite and less negotiable form of mental process, such as recalled images of past experiences.

(2) The second source is from the recorded observations of patients suffering from injuries of the brain. Sir Henry Head has summarised information about soldiers who, having received gun-shot wounds, suffered from defects of speech. He has described how these patients could not carry out correctly quite simple tasks, which at first sight seemed independent of words, such as imitating the movement of touching the right ear with the index finger of the left hand.

(3) MENTAL ABILITIES.

The mental abilities of deaf children as a group are equal, except for language, to those of children who can hear. Their academic achievements may, of course, be far inferior if they have not been taught to communicate with others. The old idea dies hard that the deaf are fundamentally inferior, stupid and "dumb" in the popular slang sense of the term; but appropriate tests of intelligence and of specific mental abilities now show that/....

that, apart from obvious limitations in the field of language and an equally obvious retardation in the education of those who have not been taught speech and speech reading (i.e. lip-reading) in their early years, the deaf are normal mentally. Many abilities are sampled by the ordinary intelligence test, and important among these are the understanding and use of language. When deaf children are tested with the usual forms of intelligence tests, they generally make poor scores and seem to be retarded in their mental development by as much as two to three years. This result seems to confirm the popular belief of centuries that the deaf are mentally inferior, and until about 1930 some psychologists believed that deafness or whatever caused the deafness, in some way interfered with the normal development of other parts of the nervous system and that the mental retardation could never be overcome. Since 1930 there has been a widespread change in this opinion and it is now recognised that, to be a fair test of the "intelligence" of a deaf child, the test must not require skill in language. The directions and the performance of the test must neither of them require the use of words. Tests of this sort have been developed and standardised, and the performance of deaf children offers conclusive evidence that the deaf as a group are normal mentally. Intelligence tests applied to the hard-of-hearing show that where the test is largely verbal in content, the scores depend on the amount and time of hearing loss.

In 1928 a report was published in the United States on "A survey of American Schools of the Deaf". The intelligence and educational attainments of 4,400 deaf were/....

were measured. The Pintner Non-language Mental test and the Pintner Educational Survey Test, constructed from standard educational tests in use in hearing schools, was used. Both tests were standardised with normal and deaf children. The investigators found that the deaf were 4 - 6 years behind the hearing in educational achievement. In the 3 years of school life, between the ages of 12-15 years, deaf children made only as much progress as hearing children made in the single year from 8 - 9 years. The mean score of the 12 year old is 258, and this was about the mean score for the 10 year old hearing children.

In their conclusions, the investigators stressed the fact that education of the deaf should begin as early as possible when the educational achievements could be accelerated. The average age of admission at the time was 7 years to residential schools and 6 years to day-schools. More than 700 of the children had spent some time in a hearing school and 4/5ths of the children became deaf before the age of 5 years.

A more recent investigation in the United States is cited by Dr. S. R. Silverman. The children who applied to the Central Institute of the Deaf were given a non-verbal form of intelligence test. In a total of 242 tests, the intelligence quotients ranged from 62 - 151, with an average of 102.7. A test of more advanced performance was given to 453 children of school age, and these intelligence quotients ranged from 64 - 184 with an average of 110.4. The increase of 7.7 points is not claimed to be due to the instruction given but is probably due to the greater familiarity of testing procedures. The results show, however, that in general intelligence, exclusive of skill in the use of the language, the deaf as a group are normal.

In tests of achievement where no allowance is made for the handicap of deafness the results showed only a 2 - 3 year educational retardation. The greatest retardation was noted in tests of reading and reasoning, and the highest scores obtained in arithmetical computation and the usage of language. The high scores in the usage of language seem surprising until we recall that deaf children learn only correct grammatical forms and the test that was employed required only visual recognition of this form. The average educational quotient in these tests was 77.8.

Drever and Collins published a book: "Performance Tests of Intelligence", giving scores and norms obtained by 1,500 deaf and hearing children in various parts of Scotland and England. The conclusions reached by Drever and Collins vary from those of the American investigation. They found no significant backwardness in ability as distinct from educational attainment, amongst deaf as compared with hearing children.

In 1952 J. M. du Toit (Ph.D.) completed a thesis on intelligence testing of the deaf in South African schools. He begins by giving a brief description and criticism of tests already used. He points out particularly the weaknesses in some of the tests used in the United States and elsewhere and finds these weaknesses causing the different conclusions and results of the investigators. He believes that the best constructed test is the Sydners-Oomen Test.

(A. Snyder-Oomen: "Intelligentie Onderzoek van Doofstomme Kinderen", Berkhout, Nymegen; 1943.) This test is constructed on a plan similar to the Binet-Simon test. There are a different series of tests for each age from 4 - 14 years. He makes the following general criticisms:-

(1) ^{Time limit:} test: (2) The fewness of items in each sub-

(3)...

(3) Unsuitability of items: (4) Inadequacy of instructions
(5) Absence of practice material: (6) The absence of any
method of determining whether the directions have been under-
stood.

For purposes of his test, Du Toit made a preliminary
selection of 15 tests and then a final selection of 10 tests.
These tests were applied to children at deaf institutions
throughout the Union and included the Wittebome School.
The final Selection includes:-

- 1) Pintners 4 dot - test.
- 2) Completion of symbol series.
- 3) Classification.
- 4) Matrices.
- 5) Goodenough.
- 5) Figure Recall.
- 7) The maze.
- 8) Identical pairs.
- 9) Symbol sequences in pairs, Sequence of 3 symbols.

These tests were applied to a random sample of 20%
of all pupils of 10, 11, 12 years in eight schools of Normal
children. In addition to these tests, the South African
group test of intelligence (form A) was used as a criterion
test. Test results for deaf pupils were compared with
x teachers' judgements. The correlation of test results
of deaf subject with these obtained by them on a performance
test is also given. For the purposes of the test at the
time, there were not enough deaf pupils for the empirical
standardisation of norms for the different ages.
Provisional norms were found. However, the I.Q. obtained
by comparing the score of the individual with performances
of others of the same age instead of with the average
performances of other age groups, does not conform to
the definition of an Intelligence Quotient.

The average I.Q.'s of deaf children were found to vary
from 98.5 (for different schools combined) to 99.76
(single school).

It/.....

It was concluded that the norms although provisional and definitely dependent on those of the criterion test, appeared to be reasonably useful in practice.

In his thesis, Du Toit makes some interesting observations. He found that: "... this sociable type, extraverted, full of self-confidence, imitative by nature, eager to please, unhampered by self-conscious shyness, and fear of blundering, who almost invariably makes a better impression than his native intelligence would warrant. Conversely, the reticent shy, self-conscious child is very often intellectually superior but realises his defect more, is more difficult to reach and to draw out, thus gets less practice and makes in general, a poor showing in speech and other language attainments."

He discussed with the teachers some of the wide divergencies between the test results and their judgements of the child's ability. Out of fifteen such cases, there were 6 cases where good and poor speech was cited as the reason for the classification. On further enquiry it was found that a child classified as of poor intelligence on account of poor speech, was doing very well in arithmetic and vice versa. For the same type of reason a child with residual hearing is often placed in a higher category than he deserves.

He also comments on the fact that deaf children seem to come to school much later than the normal, therefore you find a wide range of ages in the same class. A boy of fifteen may have the intellectual attainment of another boy of ten. To determine the extent of positive influence of schooling and command of verbal language on test results, the correlation coefficients between I.Q's and duration of school attendance were calculated and shown to be
completely/....

completely insignificant.

These observations bring to mind the following cases, both of whom were tested on the Du Toit intelligence test.

The ability to communicate with normal people as has been shown, depend on a great many factors most of which are not obvious even to people living with the deaf. The following are 2 cases where the one has been able to adjust herself to normal communication and the other has not. Both pupils entered school at the same time and both were wordless. They seemed at a similar level of intelligence. Both are severely deaf. C. (admitted at 6 years, 1942) gave a great deal of trouble when she first entered school. She made her wants known by gesture and when these were not understood, she flew into tempers. She was obstinate and refused to obey regulations. During the first 6 months, she made remarkable progress and could lip-read over a 100 words and phrases. She also learned to read these words and could write about 30 of them. She attempted some speech and with this new means of communication, lost her obstinacy. After the second year the records show her preference for expressing herself in writing but in the third year her speech was more spontaneous. By the end of the third year, she attained the first position in class with general knowledge percentage of 92, language 95% and lip-reading 92%. In 1948 she was put into a hard-of-hearing class. She fitted in quite well although not using a hearing-aid. She again came first in class and retained this position during the following years. Her vocabulary was almost as extensive as an ordinary school-child of her age. Sometimes, however, she becomes downcast when her speech is not understood although she is more ready to speak than/....

than even the partially deaf pupils. All her teachers remarked on the excellence of her lip-reading. She has also been taught Afrikaans which she reads and writes quite well although her speech is slow and laborious. She is able to communicate with hearing people by normal means. C. writes articles for newspapers and magazines which show her command of language. On the Du Toit test, her I.Q. measured 115. When she finishes school, she has been promised a job as assistant in the nursery school. During the holidays she lives at an orphanage in Rhodesia.

D. was admitted during the same year as C. She was a very quiet and reserved little girl. The teacher commented after the first year on her good drawing and handwork. Her speech and lip-reading was very poor. After the fifth year, the teacher reported that she was excellent at arithmetic but appeared to be an oral failure. Her speech and lip-reading at 15 years was of the same standard as that of many children who had been at school only a year. She is unable to communicate with her family or hearing people, except by gesture and writing. Even at school she relies on sign language at which she is proficient. She is very good at practical work. Her I.Q. on the Du Toit test was 104. Every long holiday she spends at her home in Namaqualand.

SOCIAL DIFFICULTY.

The aim in educating the deaf to-day is to enable them as far as possible to take part in the activities of a hearing world. The function of the deaf school is not only to teach them the 3 R's, but also to send them out into the world with the equipment necessary to meet all sorts of situations. There is a theory that a deaf child can develop more normally in an ordinary school among hearing children but this has proved to be erroneous. It is not much use even in the case of a hard-of-hearing child to buy him an aid and put him together with hearing children. There is no question, however, of whether the child should associate exclusively with the deaf or hearing. He should as far as possible, meet hearing people and adjust himself to a hearing environment.

A considerable amount has been written about the relative advantages of a residential and day school. At the residential school there is the advantage of guidance by "experts" at all times. Problems of the class-room and dormitory can be discussed amongst the staff. The children can be prepared for out-of-school activities such as explaining the circus before visiting it. All the children or a whole class usually go on their outings together. Living in a dormitory teaches the child self-reliance, to co-operate, accept responsibility and share with others. The day-school child has the opportunity to participate in activities of the home. He has greater freedom in the neighbourhood and more contact with hearing children.

The school at Wittebome is both a day and boarding school/....

school. According to the observations of the teachers, there is no significant difference in the adjustment of the day-scholars and boarders.

(1) PERSONALITY ADJUSTMENTS.

In seeking to discover what factors are associated with good and poor personality adjustments among adolescent boys with impaired hearing, Habbe found that the "essential characteristics of the well-adjusted hard-of-hearing boy are the same as those of any well-adjusted adolescent boy". (Stephen Habbe: Personality adjustments of Adolescent boys with impaired hearing). This refutes the theory that a peculiar or unique psychology applies to the Hypacusic group (those with impaired hearing).

Pintner and his associates found that deaf adults differ but little from hard-of hearing adults. (R. Pintner, I.S. Fusfeld and L. Brunshwig: Personality tests of Deaf adults). Both groups however, he says, are more neurotic, more introverted and less dominant than the normally hearing. Among deaf adults, it was found that those who became deaf before the establishment of speech, are more neurotic and introverted, and less self-sufficient and dominant. The conclusion was that the acquisition of speech before the onset of deafness enables an individual to communicate with hearing persons by means of speech and these contacts help to prevent personality maladjustments.

In general, the deaf, like the hard-of-hearing, are inclined to be sensitive, suspicious of their associates and to feel themselves subjected to unnecessary slights or ridicule. These attitudes are almost inevitable in view of the experience of the average deaf person who is

usually/....

usually left out of family conferences. Since small talk is not for him, he comes to regard the most casual conversation as highly important and often feels that the conversation is about himself. He may become suspicious of what is being said. Dr. D.A. Ramsdell ("Psychology of hard-of-hearing and deafened adult") says: "Deafness seems to be a powerful stimulus to any latent paranoid trends in the personality.

(2) PLAY AND SPORT.

Should the deaf child play with deaf or hearing children? At the nursery school age this does not make a difference. Speech is not an important part of play. In one experiment it was reported that deaf children learning speech at nursery school, vocalised more than hearing children. In the lower elementary grades, deaf children participate in games with hearing children if the games are active, but miss the imaginative type of play initiated by hearing. Deaf children do however, engage in imaginative play and convey ideas by gesture and imitation. As games become more complex and better organised, the hearing exclude the deaf if they are mediocre but tolerate them if they are good. Part of the school curriculum should be the teaching of the vocabulary used in games and the skills essential to play activities.

The children at the Wittebome school enjoy challenging the schools in the neighbourhood to football and netball matches. They seem to get a tremendous thrill from besting the opposing team but are very bad losers.

Parents of the deaf pupils usually only allow their children to play in the immediate vicinity with their

brothers/....

brothers and sisters. There is always a danger of passing cars in the street so that the parents discourage their games unless there is an older and more responsible hearing child in the company. Hearing children generally make fun of or are impatient with the deaf child, but once they get used to the handicap they are willing to accept him into their circle. Deaf children amongst themselves are unusually sympathetic. An older child will often help a younger child to win a game and if an injury is acquired by any one, all of them are ready to help the afflicted one. On the other hand, many mothers have complained of the relations of brothers and sisters in the family. The sibling relationships in families with deaf members, lead often to major problems. The older and younger deaf child often throw tantrums together or decide that they just will not do something. When this happens, the parents are completely at sea because they cannot understand the children nor the children them. This however, does not occur only with deaf children but also with normal although the cause of the difficulty in the former case is usually not known.

At one of the homes which the writer visited, the mother complained of some trouble she was having with her two deaf sons. E. is 13 years old and F. is seven years. E. was totally deaf from birth, but F. seems to have some residual hearing.

The elder brother came to school just two years before the younger brother. His teachers do not think that he is very bright despite the fact that he is quite good at practical work. The younger brother is a much brighter/.....

brighter pupil and also more cheerful. Of the many children in the family they are the only two with impaired hearing, but have some deaf relatives. Both children learned the sign language early and are proficient at it. The other members of the family, including the parents, can also communicate by this means.

Since the younger brother has gone to school the older one when at home is morose and sullen. His bad tempered attitude is ruining the progress he made at school. He refuses to speak at home because he realises his voice defects. He also realises that F. who has some residual hearing has a much more normal voice. Their mother prefers having them home alternately for the week-end, because she has constantly to intervene in their fights and quarrels. The elder brother had apparently been proud of teaching his younger brother what he used to learn at school but now that they are both attending the younger brother has practically caught up with the elder. E. seems to blame himself for his physical defect. The mother who has many duties to perform cannot pay much attention to either of them. She also thinks them rather snobbish because they refuse to sleep on the floor and demand individual beds. F. is quite a favourite in the neighbourhood but E. prefers to stay at home doing odd jobs to earn some money for his favourite amusement - going to the cinema. He has no special friends either in the neighbourhood or at school.

The staff at school were rather surprised to hear that the two brothers do not get along at home. They pointed out the two brothers sitting together in the playground reading a comic-book. The teachers admitted that the younger has a much more likeable disposition but they have found that E. is very willing to do little chores. He probably has a craving for attention from adults. It has

been noticed that he is making no progress with his lessons but this fact was attributed to his frequent complaints of headache rather than jealousy of his younger brother. The reason for his not having close friends, the teachers thought, was that boys of his age together with whom he had come to school were now in the more advanced classes. They also mentioned the fact that E. always volunteered to help by carrying the infants when on long walks or excursions.

(3) ENTERTAINMENT AND AESTHETIC PASTIMES.

Films.

All the deaf children and adults that the writer has met, go to the cinema as their chief form of entertainment. At school too, they are shown films as often as possible and the boarders are allowed to go to the local cinemas. In the schools for the deaf oversea, many of the lessons are taught by the use of educational films. There are also special television shows arranged which have the benefit of making the public aware of the problem, as well as helping the deaf. The visual representation of scenes and people are more clear to the deaf than any amount of explanation. Strangely enough talkie films are much more popular than silent films because of the pleasurable tactile sensation felt through vibration. For the adults there is a social evening every Thursday at the deaf centre. Here they meet to celebrate birthdays and anniversaries, play cards and games and see films.

Music

and
Dancing.

Both the deaf and hard-of-hearing find great pleasure from music. At school they have a percussion band and are taught rhythm by means of a piano. The children enjoy going to church services but sometimes get very excited with the playing of the organ. Mothers have often/.....

often complained that at home the children turn on the volume of the wireless to its fullest extent while they keep time to the rhythm of the music. The deaf are often surprisingly good dancers. They seem to be extremely sensitive to the variations in the rhythm as felt through the vibration of the floor.

Art.

Many of the deaf find painting and drawing a suitable hobby. Some of the pupils who have great difficulty in expressing themselves in writing, can often make good pictorial representations of what they want to communicate. Their visual training is probably the cause of seeing the detail and proportion which the ordinary child would miss. At home there is however, not much stimulus for artistic production (for the adult deaf member becomes an economic asset to his family) so that many potential artists are never recognised.

(4) READING FOR PLEASURE.

The ordinary child often is motivated to read to himself by having since his early years, been read to out of story-books or having listened to stories. A distinction between the 2 types of reading has been made by Albert J. Harris which he calls "recreational reading" and "study-type reading". Many hearing children have considerable appreciation for the recreational-type reading. Deaf children miss this early association with children's literature. Large numbers of deaf children seem to shun reading for pleasure. It is not uncommon to hear deaf children state rather positively their preference for factual materials rather than narrative-type material. The teachers at the deaf school are consistently asked at the end of a story or film :

"Is/....

"Is it true? Did it really happen?" If they are assured that it is fact, they are pleased, but if the answer is in the negative or doubtful, they seem to get some satisfaction at discarding the story as having very little merit.

Deaf children have too often been taught narrative material with study-type techniques. This procedure leads to dislike of narrative materials. When the child first begins reading, language has to be presented at a very moderate rate; recreational type reading therefore, has to be postponed until a relatively large vocabulary is acquired. Reading for pleasure should have as few difficult words as possible. In the lower grades, the stories are usually well illustrated which is perhaps the reason why children prefer "comics" to other story books. Another reason for their addiction to comic-books is that it is usually the only type of literature to be found in their homes.

VOCATIONAL DIFFICULTY.

During his school life the child has met with many difficulties, but a greater one faces him at the end of his school life. It is that of proving himself fit to take his place in the workaday world and to be able to obtain self-supporting employment. The success of his education is judged to a great extent by his ability to follow some trade or employment in a normal way and it is in great measure the duty of the school to prepare him for it.

The industrial welfare of the deaf is only a very small part of the employment problem and employers who look for recruits to their factories and workshops do not generally give it a thought. In these circumstances the vocational training of the deaf has recently assumed an increased importance in the schemes of instruction framed by education authorities. In most schools of the deaf special opportunities for trade training of some kind are arranged for the elder pupils.

The vocational training begins at 14 years of age. During the first year very little training is actually given and the school subjects are still continued. In the following year the emphasis is placed more on the vocational training and less on lessons. The vocational training course lasts from three to four years. Some of the pupils write their departmental Standard VI certificate with their trade as one of the subjects. Most of the pupils who are able to, find employment as soon as possible due to economic reasons.

In the schools in the Cape Province the subjects in which instruction is given are: bootmaking, tailoring and agriculture for the boys; and domestic science which includes need

needlework, dressmaking, cookery, laundering, housewifery and home industries for the girls. It seems that a much greater variety of trades in which schools can give instruction would be an advantage. For example: In a survey conducted by the United States Civil Service Commission, 1,260 types of work were found for which hearing was not considered necessary. ("Vocational guidance for the deaf" : R.H. Myklebust, Ed.D.) At the same time it must be remembered that the training school is an educational and not a commercial concern, and that the bulk of the work whereby training is provided, must be found within the organisation of the school itself.

Particular attention is given to physical fitness. The young deaf person of poor physique has no chance in industry to-day, and together with his one permanent disability his entry into a trade is practically impossible. The employer will only employ deaf persons who are capable of doing their jobs as well as, or better than, their hearing brothers.

There is a great desire on the part of the education authorities to prevent a deaf child leaving school untrained and entering some employment by which he can earn only a few shillings a week, but which will probably terminate in a year or two and provide no real training.

The importance of a thorough vocational grounding cannot be overstressed. Two young men G. and H. had received the latter part of their education at the Wittebome School. G. is now married to a hard-of-hearing girl and they both seem contented with their little home. His wife who is a very good worker is in charge of a small section of women at the factory. She has managed to save and buy a hearing-aid. She is a very well-adjusted, cheerful person who

speaks clearly though hesitatingly. G. worked in a factory for a few years. He had passed his Std. VI certificate and had been recommended by his teacher as an excellent boot-maker. Recently he managed to acquire his own business. He is doing so well that he is thinking of hiring a deaf youth to help him. He does not realise that his wife still cannot hear perfectly and is very proud of having married "a talking girl". His wife teasingly insists that he speaks to her instead of using signs. It is really remarkable to find two people with defective hearing communicating with each other by a means that is to them "artificial".

The other young man H. came to school quite late. He did not have too great a hearing loss at the beginning but did not seem to progress at the normal school where he was considered dull and stupid. He is unfortunate in that he is becoming progressively more deaf. He was admitted to the pre-vocational class and in the following year to the first vocational class. Since he is left-handed and in addition not very industrious, his teacher had great difficulty in training him. He left school suddenly when he learnt that a building contractor had a vacancy for a youth to do odd jobs. An attempt was made by the staff at school to dissuade him from taking the employment but his family were glad to have him off their hands. He has started a job which ensures no training. (It was made clear that the employment was only temporary) and will probably move from one type of work to another and be dependent on casual and unskilled work. At the same time he has no real training in lip-reading and it is only a matter of a few years before he loses all his useful hearing.

One of the most important factors in trade training is the skill and ability of the instructor. The teacher is the deciding factor. It is difficult to come by the combination

of/...

of teacher and good craftsman at the same time. The instructor must keep up-to-date with all the latest methods used in industry. He must take the pupils on visits to local workshops and factories. It is necessary to discover what is required for success in the various trades, such as division of labour. This team work is to be found in all large businesses. It must be applied in the training department, as it is only in the small shops that individual work is carried out.

The training consequently is varied, in order that the deaf student may ultimately have a better opportunity of obtaining employment with either large or small firms. Again the possibility of a student's ability to run his own business is always kept in mind. It has been found an advantage too, to bring deaf students, whenever opportunity arises, into direct competition with hearing persons of their own age engaged in the same trade. Both boy and girl students have won many prizes and certificates in competition with hearing pupils. Such competition has made the deaf worker realise, and take pride in the fact, that at the job he is doing he is quite as capable as his hearing brother.

In the United States where a great deal has been done towards the rehabilitation of the deaf, special vocational counsellors are employed to give aptitude tests. One of Pintner's students, Mildred Stanton, compared the mechanical ability of deaf children with that of hearing children. She found that deaf boys are at least equal in mechanical ability to hearing boys, while there is a tendency for deaf girls to be inferior to hearing girls. Deaf boys tend to be superior to deaf girls in mechanical ability. (Mildred E. Stanton : Mechanical ability of Deaf children).

The cause of deafness is also considered in suggesting suitable employment. Children whose deafness is due to disease or defects which have also affected the semi-circular canals are inferior in balance. Therefore, a person whose deafness is due to meningitis should know that under certain conditions, such as when he is in the dark and cannot use visual ones, he will have difficulty in retaining his balance. He should therefore not have employment involving walking on scaffolds or climbing ladders. Care is also taken in obtaining for the partially deaf employment, under conditions where the hearing loss will not be made worse by noisy surroundings. One of the advantages of some deaf workers is the fact that they can work amidst a terrible din to which the normal person cannot adapt himself.

The personality of the worker is of great importance. "More deaf (and also hard-of-hearing) workers leave their jobs because of inadequate emotional adjustments than because of lack of skill". (Hearing and Deafness: edited by H. Davis). The problem here is the unrealistic attitude toward their deafness. A young deaf worker who does not secure employment in the particular industry of his choice is inclined to think "Because I am deaf, they would not hire me." If he is paid a lower rate he may attribute it to his deafness rather than to his inexperience, which is the real reason. An important aid to adjustment in the employment sphere is good communication. Then too, there is still prevalent a great deal of misinformation and prejudice concerning the deaf. An employer who dismisses a hearing person for unreliability, does not hesitate to secure another hearing person but he will be cautious before employing another deaf worker for one discharged.

A PROGRAMME FOR BETTER ADJUSTMENT.

(a) THE PUBLIC.

The first and most important part of any programme for the deaf is not the education of the deaf person himself, but the education of the public to whom he will have to adjust himself. The person who has defective hearing automatically loses contact with the world to a certain extent. The primary problem is not his handicap but what he is handicapped for. If the child or adult can handle his handicap in such a way as to minimise its effects, should this be called a "handicap?" The handicap results from the person showing signs in his behaviour of not being able to solve his problems. Everyone knows that years ago the Chinese women used to bind their feet with the consequence that they limped, but they were not considered physically handicapped. Again in China people used to grow their nails as long as possible to show that they did not have to do any work, with the result that they were unable to perform simple personal duties like bathing or feeding themselves.

It is the demand that society places upon the individual that defines his handicap. One thinks of a man who voluntarily goes and lives as a hermit, refusing to speak to or meet others, as an eccentric character but one does not realise that one is imposing upon the deaf person this lonely life by your behaviour toward him. If a more sane attitude is adopted by the public toward the deaf, many of their little problems would be alleviated. And if the deaf knew that they
would/....

would be accepted into society not in spite of, but because of their impairment, this would provide the motivation for their wanting to communicate by natural means with the hearing.

Many of the public are not aware that the education of the deaf person has been planned in order that he might adapt himself to the normal environment. One does not have to speak in pidgin or slang English to the deaf person for he is quite likely not even to recognise it as being English. The deaf child has been taught correct grammar and correct pronunciation and will therefore find it extremely difficult to recognise phraseology with which he is unfamiliar.

It might also be of interest to the average person to learn that he is being absurd when he shouts at the severely deaf person or the person with a hearing-aid. In the first place, shouting is not natural and distorts the words so that they are impossible even to lipread; secondly the deaf person cannot hear much louder noises; and lastly the hearing-aid user can easily adjust the volume control of his apparatus. When speaking to a partially deaf person, one has to speak loudly but not in the listener's ear for he probably wants to look at one's mouth for additional visual clues.

Interesting literature, films, and radio programmes on the problems of the deaf should be made available for the general public. One very often comes across articles in newspapers and magazines describing miraculous cures for restoring hearing, astounding success with new techniques, and advertising all sorts of mechanical devices. It is impossible to make a deaf person hear again through any type of remedial technique, device or medicine. Even surgery/....

surgery has not claimed to have found the answer. In the case of the partially deaf, one does not restore the hearing, but only makes use of the residual hearing.

The deaf should be encouraged by the hearing to join their clubs and societies. Every attempt should be made to include the deaf person into discussions at homes, meetings, and clubs. The exclusion of a deaf member from even the most innocent discussions, often makes him feel suspicious that the topic of conversation concerns himself. It has been emphasised by many writers that there is a tendency towards paranoia in the introverted deaf adult. This occurs more frequently in the person who has gone deaf in adulthood than in the congenitally deaf. If there is need for gossip or discussion about a deaf person, it should never occur while he is in the vicinity. He will probably realise from the atmosphere what is happening and try to lip-read the speakers. Everybody realises the unhappiness that can be caused by overhearing or eavesdropping when the conversation is about oneself.

Superstitious ideas concerning the deaf are more than ridiculous and should have no place in a modern society. There is no mark of evil placed on any family with congenital deafness. It does not hold that a hearing person who marries a deaf person will produce deaf children even when that person is congenitally deaf. People who acquire deafness through illness or have progressive deafness are not being punished by some deity for their misdeeds.

There is no need for the hearing person to feel uncomfortable about conversing with the deaf. The deaf or hard-of-hearing person who asks for a sentence to/....

to be repeated feels just as embarrassed as the speaker. It is usually only one's elderly cantankerous relatives with old-age deafness who cup their hands to their ears and shout, "What?.....What?"

Finally there should be no necessity for any of the deaf to rely upon charity. Social services should provide all the special necessities they require to minimise their impairment. Education with up-to-date equipment should be provided for both children and adults who have adventitiously lost their hearing. Hearing-aid equipment should be made available to all partially deaf people. Skilled advice and medical aid should be a part of any public rehabilitation programme.

(b) PRE-SCHOOL TRAINING.

As soon as deafness or a hearing defect is suspected by the mother she should report it to the doctor, social worker or local clinic who will make arrangements for the child to be tested by an otologist. Mothers often go from doctor to doctor to hear different opinions but mainly because they wish to be reassured that their child will hear again. The otologist may at the time only give an assessment of the hearing loss and its consequences if the child is too young to test by means of the audiogram. He will, however, state positively whether the behaviour of the child is due to an aural defect and not anything else.

In the United States during recent years, there have been a number of programmes arranged by which mothers of deaf children have had special training on the treatment of their children. Dr. I.R. Ewing, the well-known/....

well-known educationist has also stated ("Opportunity and the Deaf Child") that even in infancy, the beginnings of lip-reading and speech can be established through home training. This does not mean that every mother of a deaf child can start training him to speak, but she can make him aware that speech is used for contact between people. Many children in the nursery school are quite unaware of the fact that they are not like other children. The realisation of deafness comes much later to many of them. Even the trained teacher is aware that a badly taught child who is made to articulate speech does not know what the goal is, and lessons in speech are for a long time tedious and meaningless.

One of the best methods of educating the infant is by employing a trained nurse or governess. This is, however, hardly possible even in an economically superior European home and certainly impossible in the non-European sub-economic one. Again the low economic status of the non-European makes it difficult for the mother to give much attention to the deaf infant. The one advantage of this neglect is that the children are not taught a system of communication which will conflict with that learned later at school.

The benefit of a companion-teacher may be seen from the education of Helen Keller. For any educational attempt to be a success a great deal depends on three factors - the teacher, the pupil and the method. Many people have agreed that the praise should go to the teacher of Helen Keller, Miss Sullivan and others have insisted that Miss Keller would have been a genius without her teacher. The fact however, remains that the method
which/.....

which Miss Sullivan used (although she had not realised that she was using a "method"), was unique

By experiment, by studying other children, Miss Sullivan came upon the practical way of teaching language by "the natural method" - that is, that a deaf child should not be taught each word separately by definition, but should be given language by endless repetition of words which he does not understand. In a letter to a friend a few weeks after she has taken the post, Miss Sullivan writes: "I asked myself how does a normal child learn language? The answer was simple - by imitation. The child comes into the world with the ability to learn, and he learns of himself, provided he is supplied with sufficient outward stimulus. He sees people do things and he tries to do them. He hears others speak, and he tries to speak. But before he says his first word, he understands what is said to him." All day long in their play-time and work-time, Miss Sullivan kept spelling into her pupil's hand, and by that Helen Keller absorbed words, just as the child absorbs words by hearing thousands of them before he uses one, and by associating the words with the occasion of their utterance. Thus he learns that words name things, actions and feelings.

Miss Sullivan had 2 other principles to which her success was also due. In a letter she says, "I have tried from the beginning to talk naturally to Helen and to teach her only the things that interest her and ask questions only for the sake of finding out what she wants to know." Again later she says, "Never silence a child who asks questions, but answer the questions as truly as possible." What Miss Sullivan accomplished was/....

was not to give her pupil a good knowledge of grammatical English but to give her thoughts direction and purpose. She became aware that language was only a system of symbols that we use to express our ideas, and that speech and understanding are only possible when we forget about language in the technical sense.

The writer is of the opinion that this method of teaching can be adopted for use with young children even where there are a few pupils assigned to each teacher. As a matter of fact, once the pupils realise what is happening - that there is a word for everything that they wish to express - they will probably assist each other by competition. The acquisition of a little speech should act as a stimulus for acquiring more. Parents and teachers should not speak to deaf children in monosyllabic words. A mother talks normally to her baby long before the child can respond to the sentences. The sentence is the natural means for expressing thoughts and should therefore, be used when speaking to the deaf infant. The art of lipreading, just as the art of listening, lies in making finer responses to the different stimuli presented. We do not expect the normal child to learn by teaching him to make the finer adjustments first. He learns these adjustments himself after he has learned the grosser adjustments.

No normal child speaks correctly when he begins talking. He mispronounces words and often lisps but as he matures, pronunciation and accent improve. It is therefore not necessary to make a deaf child repeat a few words over and over again for the duration of a lesson/....

lesson just in order that he may say them correctly. It is enough at the time that he is shown the different way in which he is pronouncing the word from the standard way. The normal method in which children acquire speech should be studied and the training of the deaf modified according to this.

The obstacles of the "natural system" is that training must necessarily begin as early as possible. The personality of the teacher is a great factor for the primary interest must be the welfare of the child. The teacher will have to explain to the family how they are expected to communicate with the deaf child. An attempt may be made to discourage the infant from using sign language. However, the controversy that prevails over the use of sign-language is exaggerated. We must recognise the system of signs as a language, whether it is verbal or not. When dealing with the normal child, we do not think it a catastrophe when we find that he speaks only a certain language and not another in which his education is to proceed. Many children who come to school, are unilingual but leave school bilingual and even polylingual. With young children especially, the teacher does not translate for them but starts the lesson in the new language immediately. It may be argued that the child has some acquaintance with the new language, but so has the deaf child an acquaintance with the spoken language.

There are a number of methods advocated by different educationists for help in speech acquisition. Edna Hill Young advises the use of the "moto-kinaesthetic method" of helping the young child to acquire speech. She says, "...the child from 12 months to 2½ years/ sponds more readily to motor kinaesthetic help than he does to the

auditory or to the visual in speech." By this plan the teacher directs the muscles in a definite way whenever the child is unable to find the correct procedure for himself. The correct movement has to be associated with the correct auditory pattern used to express a definite idea. She also mentions that she found this method successful not only with deaf children but also with children having other speech defects like stuttering and lisping. Many children learning to talk cannot of themselves make the necessary adjustments to produce certain sounds correctly. When the child cannot move readily from one sound to another he may substitute a sound to which he is already accustomed. One of the advantages of this method, the writer says, is that with the young child learning to speak can be approached in the spirit of ~~the~~ play: he is not being asked to say this or that, but shown exactly how to do it.

Another method now undergoing investigation in the United States is called, "Visible Speech". All sounds that impinge upon a certain part of the apparatus are translated into a visible speech pattern which appears on a screen. The pupil is able to compare his speech with the standard form. It is also possible to learn to read these patterns just as one does ordinary print. This method may make it possible for older deaf persons to attend ordinary high schools and universities.

It will be the mother's duty during the early years to accustom the child to a normal means of communication. As soon as the mother has ascertained how deaf the child is, she should ask for advice from the local clinic or social worker. The authorities here should attempt to get the child admitted to a deaf school as soon as possible.

(The/....

(The children are accepted from the age of 3 years). The mother should inform the family or interested neighbours about the child's defect and not be ashamed to admit it. If she is able to, she should read a few simply written books on the care and education of deaf children. The mother will need more patience with her deaf child since she must show approval whenever he uses his voice to express his needs. It is important that the child vocalises even when the auditory sense is impaired.

The attention of the child must, as early as possible, be drawn to the form and shape of the mouth when something is being said. Children soon begin to judge moods by the expression on the ^{speaker's} face. In the case of the deaf child, the face of the speaker must always be completely visible to him. The child and parent can practice speech in front of the mirror so that he can watch the shape of his own and his parent's mouth. Hearing children in the home and neighbourhood may be encouraged to practice speech reading together with the deaf child and they will soon learn to appreciate the difficulty he has to overcome. Every mother must be made to realise the fallacy of the statement, "Why should I speak to him if he can't hear." Finally it must be emphasised to the mother that she must speak to the child as often and as normally as she can. Teachers find that because of lack of speech, children are unable to use at first the breath, vocal organs and muscles normally. Simple exercises can be practiced at home in the form of games such as blowing out candles, blowing feathers in the air and even making faces in the mirror. Hearing children may not need much encouragement to join in these games as well.

THE SCHOOL-GOING CHILD.

It is at the school, whether residential or day, that the child is going to receive the bulk of his education. The deaf child will be taught systematically 4 communicative skills:-

- (1) to talk intelligibly,
- (2) learn to read lips,
- (3) read sufficiently well and
- (4) write correctly.

In addition he will also be prepared for his later social and vocational activities.

Before coming to school the child must be prepared by his parent for entering a new phase of his life. Mothers of youngsters who are boarding pupils should, if it is possible, send the child a few presents during the first weeks that he is at school. It is even better if the child recognises these gifts as something familiar like his favourite toy or his new neck-tie. The school always attempts to make the atmosphere for the younger pupils as friendly and homely as possible. Frequent letters from home, even for a child who cannot read, seem to pacify them to some extent.

When the child is admitted he is given a complete medical examination, his hearing is tested and the loss determined, a full report is made of his history, scholastic attainments are included, etc. After the first few weeks that he has been assigned to a class his teacher reports on whether he fits into the class or not. Unlike the normal school, the deaf school admits annually children of completely different ages, temperaments, scholastic attainments, hearing and speaking abilities, economic circumstances,

family backgrounds, and so on. Every child must receive a considerable amount of individual attention therefore the classes must be kept as small as possible - not more than eight pupils to one teacher. It is a good idea to change teachers from lesson to lesson so that the children will be compelled to get used to different voices and lip movements.

As much individual attention as is possible is necessary if the "natural method" of teaching is used. All the children should be encouraged to ask questions when alone or in class. Every question should be answered by the teacher to the best of his ability, for it must be remembered that language is only a means and not an end in itself. Deaf children the writer was told seldom asked questions pertaining to their school work in case it was going to involve further conversation on their part. They have the attitude that one lets sleeping dogs lie. This is probably due to the type of comprehension test adopted from the normal school used by some teachers of the deaf. An attempt should be made for the children to set the questions on any particular subject that interest them, for example: how they are going to beat the opposing football team, or whether a 12 year old should go to the pictures at night, or why women are unpredictable, and the teacher should answer the majority of questions. The previous statement of the teacher, if it has been understood, will provide the substance for the next question. It is very seldom in real life that we are actually required to understand the meaning of some obscure, pedantic passage, so why subject a deaf or hearing pupil to this ordeal.

The first principle in reading is to give the child material which is interesting and suitable to his ^{age} and experience. The second principle is to give children reading material where the majority of words are those with which they

which they are already familiar. Whereas the normal child who is reading-ready has acquired a vocabulary of 2,000 words, the deaf child may only have a vocabulary of ~~200~~¹⁰⁰ words or less which he can lip-read or understand the meaning of. The skilful teacher uses this as a basis on which to build. In this way he gives the child an impetus and a desire to learn to read and use words, and to support the child's lipreading skills. Some people think it is better to teach lipreading and reading simultaneously, but the advantage of teaching lip-reading first is that he will not completely inhibit the habit of speech when he finds reading more successful.

The best method for the parent to adopt, is to use the language at home which the child is using or is going to use at school. It is not necessary for the family to speak only this language but they should always use it when the deaf member is present. This is a much simpler solution in a multi-lingual country like South Africa than to expect a special school with a special syllabus for each different language. At present the best school is the one where they teach the language that the child will eventually use at his vocation. Thus if he wishes to work in the rural areas, it is advisable to go to an Afrikaans-medium school and if he is going to work in an urban area, he will probably go to an English-medium school. In time it may be necessary that there are schools teaching through the medium of languages like Xhosa and Sotho.

Although the vocational course at the schools for the deaf is of great value, especially to the deaf non-European, it is doubtful whether it should be applied in the case of every pupil. The school authorities should consult the parents and the child before he begins the course. If a child comes from an economically superior home, the parents
may/....

may feel that it would be of greater benefit to their children to have as much education as possible. The child of fourteen in the normal school does not have his studies interrupted because he must soon go and earn his living. The deaf child of fourteen has probably not even acquired half the knowledge of the hearing child and is certainly entitled to the same consideration. Again it must be stressed that the method has to be fitted to the child and not vice versa. The deaf child should be encouraged to do at least his Junior Certificate, (one or two of the non-European pupils accomplish this annually) and if possible his Senior Certificate. Quite a number of people although handicapped by deafness, have university degrees. It must always be borne in mind that deafness does not limit the intelligence of any person. The number of vocational subjects in which training is given, should also be increased. And no deaf child should find it necessary before he has a thorough vocational grounding to leave school for economic reasons.

If it is possible, every deaf institution should employ a full-time guidance officer who will be qualified to advise teachers and parents on behaviour problems which are encountered. He must be completely independent of the staff so that the pupils will feel free to ask for advice in connection with their personal problems. It will be his duty to visit the parents and inform them of any changes brought about at school and to encourage them to assist their children in their adjustment to a normal environment. He will probably also give intelligence, vocational aptitude, and personality tests. He should be required to know each child/....

child as far as possible individually. He should also keep in touch with past pupils to learn how far the education they received has benefitted their future careers.

THE ADULT DEAF PERSON.

While the deaf child is at school he is protected from the trials of the normal world to a much greater extent than the normal child. He competes with other children who also have impairments. But when he finishes school, he must go into a world where the majority of people are physically quite sound. He may have learned to adjust himself to a hearing environment at school but now he has to adjust himself to hearing people. Unfortunately many of the deaf adults whom the writer has met, have not been able to adjust themselves completely, although one could not in the casual sense of the word, call them "maladjusted". They move in a very restricted world, only communicating with others when it is necessary. Deaf persons living in large urban areas such as the peninsula, have the advantage of going to their own social clubs at least once a week. It is also unfortunate that the school loses contact with its past pupils, although nobody is to blame for this. The school staff are very interested in whether they have achieved their purpose of turning out successful, responsible, well-adjusted people but only occasionally they hear from an old pupil. This must come as somewhat of a disappointment since the staff attempt not only to be teachers, but also companions to their pupils.

Most of the deaf find and keep employment.

Employers/....

Employers who make a practice of employing the deaf have found that the deaf worker is adjusted to routine and does not waste his time during working hours. Unlike most factory workers, they already have some experience at their trade when they commence working. It is unfortunate that in spite of being good workers, they are usually unable to advance to more responsible positions because of their defective hearing. Perhaps undue stress is placed on the problem of employment. In the case of the deaf non-European, this is not obvious because most of the relations of the deaf person are usually struggling to make ends meet. Then too, the only amusements or entertainments which the average non-European has, is going to parties, dances and the cinema. Since the deaf can participate in all these, no great demand is made on him in this social sphere.

The adult person who has become deaf or is becoming deaf, should begin by taking lessons in lip-reading. The best person to consult is the branch-secretary at the nearest centre of the National Council for the Deaf. The Secretary will arrange for a hearing-loss test and a consultation with an otologist. If necessary, the secretary will also arrange for the person to receive lip-reading lessons. The person who is hard-of-hearing should attempt to buy a hearing-aid. Generally the person with defective hearing feels embarrassed to wear a hearing-aid. In nearly every case, the hard-of-hearing person needs an aid before he admits it or accepts one. It is prudent if the patient begins wearing the aid long before it is absolutely necessary. A period of adjustment to the aid is advisable because the patient will not at first hear conversation/....

conversation normally. He need not wear the aid continually but could use it at the cinema or when listening to the radio. If at a later date it becomes necessary to use the instrument constantly, the period of adjustment will not prove so difficult.

To conclude then, the writer is of the opinion that although the deaf are handicapped in that they cannot hear sound, their education should not proceed along artificial lines. Since they will be expected to fit into a normal world, all the training they receive, should have that ultimate aim in view. If the deaf person has overcome his difficulties, he should be able to adjust himself to the hearing world. Despite the many fallacies regarding the deaf person, when he appears "normal" to the ordinary person, his education will have achieved its purpose.

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