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Speech defective child; a challenge to the Montana teacher

Darrel G. Minifie

The University of Montana

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THE SPEECH DEFECTIVE CHILD;
A CHALLENGE TO THE MONTANA TEACHER

by

Darrel G. Finifie
M.A., Montana State University, 1951

Presented in partial fulfillment of the requirement for the degree of Master of Arts.

Montana State University
1951

Approved:

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Chairman of Board of Examiners

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Dean, Graduate School

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PART I
INTRODUCTION

The problem of the speech defective child has been passed from the home to the school and from the school back to the home or in some cases to the family doctor. No one agency has assumed full responsibility for the development of adequate speech in the child, nor has the school or the home, in most cases cooperated in helping the speech defective modify his problem.

In many cases the parents do not realize the extent of the child's defect until it is time for him to start school. The reason for this is that in most communities in Montana there is no adequately trained person available to advise the school or the home as to what to do. Many teachers do not understand what causes a speech defect or how to deal with such problems in the classroom. Because of this lack of knowledge, many teachers have often branded the speech defective child as somehow lower in intelligence than the average child. By being branded as lower in intelligence, a high percentage of these children, it is found, have been denied promotion to the next higher grade.¹

Even more serious than the failing of a grade are the feelings of failure which tend to result from the child's being placed in the category of "defectives."

Society has accepted the responsibility for those

handicapped by blindness, deafness, and lameness. Parents
and teachers are educated in preventive measures as applied
to these handicaps. In most communities treatment is available
for people with such handicaps. There is usually occupa-
tional training available which will enable the person to
become a useful member of society. National benefit dimes
are given for the crippled, seals are sold for those suffering
from tuberculosis and cerebral palsy, and many fraternal and
civic organizations sponsor funds which care for some of the
blind and deaf. State funds, too, are available for such
purposes, and state schools for the handicapped, though
generally overcrowded, are providing reeducation and re-
habilitation for great numbers.

But in spite of all the work that is being done for
people with handicaps, there are still vast numbers of
defectives who live unaided and misunderstood. Van Riper
stated:

In this country alone there is a group of afflicted
persons numbering over six times the total number of
blind, deaf, crippled, and mentally defective combined.
This group consists of those who suffer from speech
defects. Their symptoms are frequently less dramatic-
cally obvious than those of the blind or crippled,
and yet they may suffer just as much as the others
from the torments and rejections of a society which
does not understand them. Of the one and a half
million speech defectives of school age, less than
60,000 are receiving even perfunctory remedial treat-
ment, no vocational specialization is opened to them,
and little prevention is being taught. While other
groups of abnormal persons are yearly receiving more
of the assistance that they rightfully deserve, the
speech defectives are being thwarted and neglected.\textsuperscript{2}

It is the responsibility of the schools to handle the speech defective child in the classroom in a manner which will not aggravate the defect. Van Riper further stated:

Ninety-six per cent of the speech-handicapped individuals of school age go without any retraining, and far too many of these show a yearly increase both in severity of the actual defect and in the abnormalities of personality which are built around it. In addition to these, there are hundreds of thousands of adults who are maladjusted because of a speech difference.\textsuperscript{3}

There is also an essential economic need for speech-correction work. Inherent ability is being wasted because speech defectives have little or no opportunity to improve their speech or to fit themselves for the competition in society with normal speakers. In addition to their future liability, the younger speech defectives place an added burden upon society's educational system. "The average speech-defective student is retarded one year in school because of his handicap, and the educational expenditure is therefore much greater."\textsuperscript{4} In view of this it would be economical to provide treatment for them in the public schools.

The White House Conference of 1930 reported the


\textsuperscript{3} Ibid., p. 6.

\textsuperscript{4} Ibid., p. 7.
approximate yearly cost of reeducating each handicapped child:

blind - $500; deaf- $204; crippled - $500; feebleminded - $100; speech defective - $10. The actual cost of providing retraining for a speech-defective child is only $10 annually, almost a negligible percentage of the amount expended upon other handicapped children. And although the total number needing treatment is much larger, the future economic gain in turning these children from economic misfits into self-sufficient adults would justify the present financial expenditure.

In an attempt to determine the speech-defectives status in Montana schools, a questionnaire was sent to 603 schools in the state with the idea of determining: (1) Number of Speech-Defective Children in Montana public schools. (2) Number of personnel trained to deal with the speech-defective child. (3) Extent to which the trained personnel were offering service to the speech-defective children of school age. As a result of these findings it seems indicated that some general information regarding the therapy of the speech-defective child be included in this thesis as a guide to the administrators and classroom teachers who have had no specific training in dealing with speech corrective work.

The organization of this thesis includes: (1) Definition of speech defects, (2) a statement as to the approximate number of speech-defective students in Montana, (3) and what is being done in Montana at present to help these speech-defective students. The above points are covered in Chapters I and II.

---

5. Ibid., p. 7.
Chapter III includes the type of information the classroom teacher can use in dealing with speech-defective students. The classroom teacher naturally is not expected to make use of all this information as a speech correctionist would. However, from this information she should gain valuable orientation as well as simple points that can be employed within the limits of the classroom.

The material contained herein is submitted with the hope that it will bring to the attention of all administrators the number of speech-defective children, branded as such in their community. In this thesis every attempt has been made to avoid the use of technical terminology.

I THE PROBLEM

Social processes are constantly at work in all types of groups and especially in recitation or communication classes. It goes without saying that the speech-defective child is penalized in such classes by his inability to communicate as he would like to. This study has been set up as a speech research in an attempt to determine the number of speech-defective children in the public school systems of Montana and to what extent such children are receiving special help.

II IMPORTANCE OF THE SUBJECT

In the field of education there is value in any study
which has an ultimate objective of pointing out what
can be done in an effort to bring about the best possible
adjustment of the individual student. Some value lies in the
research itself, but an even more important value lies in
the use to which this information may be put. The collection
of statistics is of little value unless the educator makes
some use of the findings in the teaching situation.

It is important for the classroom teacher to make
certain that all of her students become acquainted with, and
understand the problem any one student may have. This is an
accepted concept in the field of mental health. The point
of view of this thesis seeks to emphasize the necessity of
having all students in the classroom understand the special
problem a student may have in relationship to his having a
speech defect. It is important to the speech defective that
other students do not discriminate against him merely because
he does not talk as they do.

Every classroom teacher teaches speech at least by
way of setting an example for her pupils. The teacher
knowingly or unknowingly favors certain standards of speech,
voice, and language. She encourages certain attitudes, and
discourages others. The teacher in countless ways creates
an atmosphere in the classroom that is in some degree favor-
able or unfavorable to the development of the best speech of
which each child is capable. From the speech correction.
point of view, the teacher creates an atmosphere, whether or not she means to do so, in which the child with a speech defect either is demoralized or is helped not only to improve his speech but also to live gracefully with his defect so long as it persists and to grow as a person in spite of it.

**What is a Speech Defect?** A child may be thought to have a speech defect when his listeners pay as much attention, or more, to how he speaks as to what he has to say. It must be kept in mind that the main purpose of speech is that of satisfying self-expression and developing effective communication. If a child is achieving these purposes passably well, his speech is not defective in any very important sense, regardless of how he speaks. On the other hand, if he could achieve these purposes more fully with improved speech, then, even though his speech may seem to be reasonably normal, there is something to be gained by him through speech correction work. Generally speaking, the kinds of speech defects described in this thesis are the ones that will be found to "make a difference" to the person who has a problem whether it be in the classroom or outside of school.

By way of describing speech defects more clearly it is important that the teacher does not confuse speech defects with certain other types of problems and disabilities. The following are sometimes confused with speech defects:

a. Improper grammar.
b. Incorrect pronunciation.
c. Substandard ability to read, silently or orally.
d. More or less habitual lack of preparation for class recitations.
e. Certain types of personality maladjustment.
f. Mental subnormality.

In many cases speech defects are related to these conditions. Often a person who exhibits one or more of the problems listed above may also have a speech defect. For example, a child who is mentally subnormal may have a speech defect but his basic problem should be stated as mental subnormality. Speech defects of certain kinds are often associated with mental subnormality. The correcting of the speech defect will not remove the low mentality, which will remain as the fundamental problem. "In some cases, it is true, the I.Q. may be raised, usually slightly, by the marked alleviation of a particularly disabling speech defect."6 The classroom teacher cannot deal as well with a mentally deficient pupil by regarding him as a speech-defective.7

Speech defects classified according to type. In the chapters of this thesis the following kinds of defective speech are considered:

a. Articulation.

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7. Ibid., pp. 2-4.
b. Voice Disorders.
c. Stuttering
d. Retarded speech development.
e. Speech defects associated with cleft palate.
f. Speech defects associated with cerebral palsy.
g. Speech defects associated with impaired hearing.

Defects of Articulation are:
a. Omission of sounds: a speech sound may be habitually omitted, as in saying, Robert for Robert, or pay for play, or din't for didn't.
b. Distortion of sounds: a particular speech sound may be slighted, articulated too softly to be heard clearly; or a particular sound may be over-articulated, as in the case of a "whistling" s.
c. Sound Substitution: a speech sound may be substituted as in wun down the woad - substitution of w for r.

The child with an articulatory defect has difficulty in producing speech sounds. His error may not always be consistent. In one combination of words he may produce a sound correctly while in another combination or words he fails to produce a sound adequately. A child who omits sounds may talk in this manner: "Ta oo uhta? Be ta, datty dah tittuh titthh a o" for "Can't you understand? He say, Jacky got little sister at home."\(^8\)

\(^8\) Ibid., p. 91.
A child that substitutes sounds may talk in this manner. "I threw a wock at the wabbit," or "Leave me alone, Biwy!" or "Dacky can't eat me!" or "Juvver, I hurt my rumble." Most authorities agree that from 5 to 10 per cent of all school children have articulatory defects. Johnson states that:

On the basis of speech correction experience in the schools, there is fairly general agreement that 2 to 5 per cent of school children have serious articulatory defects, another 2 to 3 per cent have less severe defects which definitely require special attention, and still another 2 to 5 per cent would profit considerably from speech correction although their defects are comparatively mild or inconsequential for most ordinary purposes.

Errors in articulation may be caused by organic conditions such as misplaced teeth, too many teeth, too high or too narrow a hard palate. In most cases articulatory defects are not caused by organic conditions but are the result of faulty training or learning.

The incidence of articulatory defects is so great that teachers are concerned with what can be done in the classroom to help the student who has a defect in articulation. This is developed in length in part II of this thesis.

Defects of voice are mainly classified in terms of the three primary attributes of voice. These are loudness, pitch, and quality. The voice may be too loud, too weak, or monotonous. Pitch may be too high, too low or monotonous. The chief defects of quality are: nasality, hoarseness,
harshness, and breathiness. Many of the voice difficulties in children may be associated with such things as the common cold, laryngitis, or enlarged adenoids. Many are also associated with emotional frustrations. "Estimates vary, but probably from 1 to 2 per cent of school children present significant voice problems."

What can be done within the school to help the student that has a voice defect is taken up at length in part II of this thesis.

Stuttering is probably the most challenging of all speech defects, not only to the speech correctionist but also to the classroom teacher. This speech defect is found in approximately 6 to 10 out of every thousand school children. Stuttering is a disturbance in the rhythm of fluency of speech, consisting of pauses or hesitations, repeated or prolonged sounds, or inclusion of extraneous sounds. The stutterer anticipates difficulty in most speech situations, he becomes tense and afraid and as an end result he tends to avoid talking.12

In many cases the onset of stuttering is related to some emotional disturbance related in the classroom. In the sense that the teacher may be responsible for this emotional disturbance, part II of this thesis deals with what the

12. Ibid., p. 177.
teacher can do to eliminate the factors that tend to contribute to the child’s emotional disturbance.

**Retarded speech development.** Most normal children begin to say words, at about the age of 12 to 15 months; a child who has not learned to speak in simple words by the age of at least three years needs special attention. There are not only wide differences among children but also great variations in the conditions under which the child learns to speak. A sufficiently abnormal environment can retard the speech development of a definitely normal child. An environment would tend to oppose normal speech development if the parents did not:

a. **Play with the child.**
b. **Read to the child.**
c. **Give the child experiences about which to talk.**
   (Such as trips to the fire-station, railroad station, bus depot, etc.)
d. **Take time to listen to what the small child had to say.**

Other factors which tend to make for retarded speech are:

a. **Mental subnormality.**
b. **Illness and physical impairment, such as paralyzing conditions.**
c. **Over-solicitous parents who wait upon the baby’s every coo and gesture, so that he simply experiences**
no need for speech.

d. Intense shock, fright, or shame, experienced over sustained period or on one or more crucial occasions.

Most surveys show that roughly 5 out of every 1,000 school children in the early grades (grades 1 to 3) show retarded speech development as speech correctionists use the term.13

Teachers dealing with the kindergarten or grades one to three will be especially interested in the monograph, "The Child Doesn't Talk" in part II of this thesis.

Speech Defects associated with Cleft Palate. With a defective cleft palate the structures which normally form the roof of the mouth have failed to join properly. As a result, air passes freely between the oral and nasal chambers. This means the speech tends to be nasalized.

The cleft may be a slight or an extensive cleft. It may extend through the lip, gum ridge, and entire hard and soft palate. As a result of cleft of the hard or soft palate, the tissues of the soft palate may be partially or completely divided. Surgery is commonly used to repair the cleft of the lip, hard and soft palate. When surgery is impractical, an appliance called an obturator, is often used to shut off the nasal from the oral passage. It must

be remembered that neither surgical repair nor an obturator is sufficient, except in very rare cases, to eliminate the speech defect. Speech correction is necessary in practically every case. There are approximately 1 in every 1800 children born with a cleft palate.14

The teacher who has a cleft palate child in her classroom will find the monograph, "A Manual of Speech Training for the Child with a Cleft Palate" in Part II extremely valuable.

Speech defects associated with Cerebral Palsy. A cerebral palsied child may exhibit faulty muscular coordination in any muscle or group of muscles in the body. He may exhibit faulty muscular coordination in one or both arms, in one or both legs or in all four limbs. This lack of coordination may be limited to muscles of the face or muscles used in the production of speech. If the cerebral palsied child shows no involvement of the structures used for speech, he is said to be cerebral palsied but he is in need of no speech retraining. This thesis is concerned with those who do exhibit faulty muscular coordination in the structures used for speech.

The number of children affected by cerebral palsy is probably about the same as the number affected by infantile paralysis. Evans writes that:

---

---
...The following statistics are most commonly accepted as to the occurrence of this malady. There are seven such crippled children born every year per one hundred thousand of the population. ..

Usually, the speech of children with this disorder is labored, slow, and jerky, the voice tends to be monotonous and relatively uncontrolled, and the articulation suffers because of the impaired muscular coordination.

At present Montana has a Cerebral Palsy center which is housed in Eastern Montana College of Education at Billings, Montana. Mrs. Thors Baker is the speech correctionist in charge. Mrs. Thors Baker writes:

There are sixty-one children now enrolled on the active list on the treatment program at the Cerebral Palsy training Center. Of these, thirty-five are on the speech therapist's schedule. Of these thirty-five, there are sixteen who are receiving from one to five one-half hour lessons per week.

Even with this clinic the classroom teacher plays a vital role in determining the opportunities which the cerebral palsied child will have in making the most of the training given him by the speech correctionist and by other specialists. The classroom teacher will find valuable information in Part I where possible therapy is suggested.

Speech defects associated with Impaired Hearing.

Hearing loss may result in certain distortions and omissions of articulation and voice. The child with impaired hearing may not hear the speech of others well enough to

imitate accurately the finer qualities of voice and reproduce some of the individual sounds which make up the word or sentence. A child with impaired hearing cannot always hear his own voice sufficiently well to know that he is making particular errors or not controlling his vocal inflections accurately. The degree to which speech is affected depends generally upon the degree to which hearing is impaired.

There are approximately 3 per cent of school children who have educationally significant hearing losses, and at least another 5 per cent have losses that call for proper medical attention and that may affect speech in some cases.17

This thesis is concerned with a child who has a hearing loss slight enough which will permit him to effectively participate in the public school. A child may have a hearing loss great enough to indicate the need for a hearing aid. With a hearing aid the child may effectively participate in the classroom if the teacher follows the simple rules set forth in the monograph, "Helping the Hard of Hearing Child in the Schoolroom" listed in Part II.

Those children who have a hearing loss so great that even with a hearing aid, they still cannot effectively participate in the classroom, are in need of the services offered by a special school such as the school for the deaf in Great Falls, Montana.

17. Ibid., pp. 1-10.
CHAPTER II

THE STUDY

This study was prompted by the question, "How does the number of speech defective students in Montana Public Schools classified, as such, by teachers and administrators, compare to the number of speech defective students determined by National surveys?" Aside from the interest in pure number, the study was prompted by the further question, "What is being done in Montana Public Schools for the speech defective child?" The results of the survey used to assemble the information which would answer these two questions will be dealt with in the following pages. It is adequate to say that as a result of the survey done in the State of Montana it was indicated that a separate part of this thesis be developed which would include some specific information that the teacher in the classroom could use by way of being a better teacher for a child with a speech defect.

Chapter I and II deals with what is included in the concept of speech defects as well as the results of the questionnaire which show the number of speech defective students in Montana Public Schools and what is being done for them.

Questionnaires were sent to 603 schools in Montana. Included were all first, second, and third class schools listed in Montana Educational Directory, along with the
questionnaire a definition for each speech defect was included as well as a letter of instruction stating how the questionnaire should be filled out.

All the questionnaires, definitions and letters were mimeographed to keep the material as uniform as possible. This reduced possible error caused by variation in instructions. The mimeographed form in which all the material was presented not only reduced possible error but also made the computation of statistics much simpler.1

Questionnaires were mailed during the month of February to each school superintendent or principal.

II SCHOOLS CHOSEN FOR STUDY

All schools did not reply and since many administrators and teaching personnel do not fully understand what constitutes a speech defective child the analysis will be considered as merely an indication of the number of public school students who have speech defects.

III THE QUESTIONNAIRE RESULT

As an initial step in the analysis of the data, charts were prepared for the entire state and for individual counties.

What these charts seek to show is a graphic picture

of how the speech defective child is being served in Montana. For example, charts number 1, 14, 13, and 10 are concerned with the number of students in the public schools of each county. This total was derived from the total enrollment as reported by the administrators that replied. In cases where schools did not reply to the questionnaire the total enrollment, in such schools, was computed from the Montana Educational Directory for 1950-1951. The second column lists the number of students in the combined schools that replied to the questionnaire. The difference between these two columns represent the students in the county covered by this survey. The remainder of the chart shows the total number of speech defectives and then lists those in the different categories; stutterers, cleft palate, articulation, cerebral palsy, retarded speech, speech defect associated with a hearing loss, voice defects. Speech defectives are divided according to sex with the last column listing the total number of speech defectives still in school that have been grade repeaters.

The purpose of this information is to discover how adequate and systematic a speech corrective program is being carried on in each community.

It was found that only six school systems had a teacher that had some training in speech corrective work. Of these six only four were actively doing work in this
field. One teacher stated his administrator felt the progress of speech defective children did not warrant the time allotted for this type of work. Twenty per cent of the schools replied yes to the question: "Does the evidence support the assumption that speech handicapped children are lower in intelligence than normal children? This seems to indicate that many of our teachers and administrators lack information in this field. There were also thirty-five per cent of the schools that either left this question blank or stated they didn't know.

Charts Number 2 and 21, on pages 25 and 26, indicate the percentage of speech defective students now in school, that have been grade repeaters. This percentage in most cases is extremely high since the majority of speech defective students are no lower in intelligence than the average child. This could indicate that teachers and administrators do not know how to deal with these children in the classroom.

Charts Number 3 and 31, on pages 28 and 29, indicate the percentage of speech defective students, of the total number of students covered in the schools that replied from each county. This percentage varies from one county to the next. This may be an indication that many teachers and administrators did not know which to classify as speech defectives, or on the other hand classified many as speech defectives that were not. The national average would
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<th>NO. OF BOYS</th>
<th>VOICE DEFECTS</th>
<th>HEARING LOSS</th>
<th>RETARDED SPEECH</th>
<th>CEREBRAL PALSY</th>
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# Chart I B

**Total Enrollment of County with Number of Students Covered in Survey**

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be from 5 to 10 per cent of the total enrollment.

Chart Number 4, on page 30, is concerned with hearing testing. The percentages listed under: percentage of schools that give whisper tests; percentage of schools that give watch tick tests; percentage of schools that give audiometric tests; and percentage of schools that give no hearing test is broken down to cover the schools that replied totals up to 100 per cent. The remainder of the chart shows what percentage of the schools give hearing tests annually or only occasionally, and whether these tests are given to all students or only those referred by the teacher.

The larger percentage of schools that give whisper, watch tick or no test at all is alarming. The whisper and whisper tests are considered very inadequate to determine if one has a hearing loss.

Dahl points out that; previous to the development of the audiometer this disregard of the ears was perhaps excusable. Older methods of testing hearing (whisper and watch tick tests) were inadequate and extremely unreliable.2

A study by Feldman of the ability of teachers to recognize hearing difficulties showed that out of 63 cases of impaired hearing, teachers named only 14, or 22.2 per cent. They also include in the list 46 other children who had normal hearing.3


# Chart III

Percentage of Total Enrollment Recognized as Speech Defective

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PART II
CHAPTER III

WHAT THE TEACHER CAN DO TO MEET THE CHALLENGE IN DEALING WITH THE SPEECH DEFECTIVE CHILD

What can be done within the school to help the student that has a speech defect?

This part of the thesis includes the type of information the classroom teacher can use in dealing with speech defective students. The classroom teacher naturally is not expected to make use of this information as a speech correctionist would. From this information she should gain valuable orientation as well as simple points that can be employed within the limits of the classroom.
ARTICULATION

The younger who has difficulty in articulation does not form and produce all of the speech sounds in the usually accepted manner. This form of speaking is commonly termed "baby talk." Usually, these errors may be conveniently grouped under one of these classifications: substitutions, distortions or omissions of sounds.

The intelligibility as well as the effectiveness of speech depends upon the distinctness with which speech sounds are articulated in sequence. Words cannot be clearly understood unless the sounds in the words, that are customarily articulated, are clearly produced. In many cases, speech sounds are omitted or distorted with other sounds, until the identity of words may be obscured.¹

The largest single percentage of all speech handicapped school children is made up of those who have difficulty in articulation. Wood stated that

approximately two-thirds of all students have speech deviation, this group consists of those who omit sounds, and those whose articulation is generally inaccurate and characterized by lethargic oral activity. In all such cases the deviations are said to be articulatory in nature because the problems are centered in the co-ordinative movements and placements of the tongue, teeth, lips, lower jaw, and soft palate. The speech difficulties referred to here involving these organs are functional in the

sense that there is no predominating physical defect. There is no loss of hearing acuity, no muscular weakness or paralysis, no intellectual impairment, and no oral or dental malformation which would prevent the establishment of distinct articulation. The main factor has been one of faulty speech habits. It can be observed, for example, that many students with maloccluded teeth and high palatal arches have good speech while many others with perfect structures have poor speech. However, it should be noted that structural defects may cause sound substitutions or distortions. 2

The classroom teacher can do much to help a student with this form of speech problem. Curtis states that the classroom teacher can do her best to create conditions that will not penalize the child for his defect, and can recommend, where possible, that the child be referred to someone who has had training in the correction of speech defects. With certain cases, the teacher can do a great deal, provided she is interested, desires to help, and is blessed with those qualities of understanding, patience, and perseverance necessary to do a job of retraining the speech of the student with a handicap. The teacher who has these qualities is usually willing to find the time, and put out the effort that will do much to help the students who have articulatory errors. 3

To merely tell a child that he does not speak clearly is not sufficient as the child needs help in locating and


understanding his specific points of error. The teacher should help the child determine which sounds he produces correctly and which ones incorrectly. Since the correct pronunciation of sounds are learned by hearing others pronounce them, the child should not be expected to rely on his ear to make correct judgments in analyzing his own speech. His teacher should listen to him read and talk. Wood states, "it is of signal importance that the teacher who does this have excellent speech, a well-trained ear, and some knowledge of phonetics."4

Through research it has been found that frequently the slurred effect of speech can be traced to the faulty production of only a few sounds; the student should be able to make real progress if these sounds are pointed out to him.5 Curtis points out that the following outline for the correction of articulatory defects is used in one form or another by almost all speech correction teachers. This same outline could be used to advantage by the classroom teacher. The points in the outline are:

1. Eliminate, or minimize the effect of factors causing the defect.

2. Create vivid auditory impressions which will enable the child to recognize readily both the error and the correct sound, and to discriminate between the two whenever he hears them.

4. Wood, op. cit., p. 36

5. Ibid., p. 36
3. Teach correct production of the sound in isolation.

4. Strengthen the correct production of the sound so that it can be produced easily and at will.

5. Secure transfer of the correct sound into connected speech in a small nucleus of commonly used words.

6. Make the production of the correct sound, instead of the error, habitual in all connected speech.

Concerning number one in the preceding outline, the teacher should check to see if the organic factors which may contribute to articulatory defects are causing the trouble—such as: crooked or spaced teeth; jaws out of alignment; tongue-tie, or misshaped palates. These to some, or to all extent, can be repaired by dental and surgical reconstruction. Such operations are usually expensive, and doctors and dentists trained in this work may not be available in all localities. Whenever possible, the teacher should seek medical advice concerning the feasibility of remedying such obstacles to good articulation and if an operation is recommended, it should be performed prior to beginning speech retraining. It must be remembered that the correction of these organic defects will not of itself produce good speech. The habits already developed will still persist, and the teacher will still have an important job to do after the

6. Curtis, op. cit., p. 110
operation has been completed.7

It will be well for the teacher to remember that these organic defects are:

Usually contributory causes, rather than disabling factors, with respect to the speech problem. Many individuals have attained excellent speech in spite of marked, and even severe, abnormalities of the articulatory structures, sometimes with no special speech training.8

It must be remembered when trying to teach the student to pick out his own articulatory defect that "the speech mechanism is an instrument which we learn to "play by ear."9

Curtis stated:

If one were to try to pick out a tune on the piano by ear and had no clear impression of what it should sound like, it would be strange, indeed, if the results obtained turned out to be faultless. Yet that is almost exactly the situation of many persons with articulatory defects. They do not have a clear auditory impression of what the correct sounds should be or how they differ from their errors.10

The failure to make fine auditory discriminations may underlie many of the younger's distortions and omissions of sounds. The distorted sounds appear correct to the child. The omissions occur most frequently in positions where the

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7. Ibid., p. 111.
8. Ibid., p. 111.
omitted sounds tend to be obscure, and to the child's ear it is possible that no distinctive characteristic of the word has been lost. 11

The exact amount of ear training work the teacher will need to do with the student will vary with different individuals.

It is essential that the child attain certain minimum goals before he is prepared to attempt to produce correct sounds. Curtis points out that:

The child should learn to break down the word patterns containing his error, in at least a number of commonly used words, so that the error is recognized and isolated as a distinctive sound unit in those words.

Among the procedures used for this purpose are the following:

a. Lists of words are read by the teacher. Some contain the difficult sounds and some do not. The child signals each time he hears a word containing the sound. Score may be kept by counting one for each correct recognition of a word containing the sound and subtracting one for each miss. Progress can thus be charted.

b. A scrapbook can be made of pictures of objects whose names contain the sound. The name, with the difficult sound underlined or printed in red, is written below each picture.

c. A hide-and-seek game may be played in which pictures or objects whose names contain the difficult sound are hidden in the room along with other pictures and objects whose names do not contain the sound. The child is to find as

11 Ibid., p. 113.
many as he can and place them in separate piles. He is given points for each one found and placed in the proper pile, and points are subtracted for each one placed in the wrong pile.

d. Older children and adults may be assigned to underline all words in a paragraph which contain the difficult sound, or to mark all such words in a list, etc.

The child should learn to recognize and identify the error sound and the correct sound as separate entities, and be able to discriminate between them easily.

Following are examples of the kinds of procedures used to accomplish this goal.

a. Both the error sound and the correct sound may be given names. For the child, the sound can be associated with animals, or objects which make noises, so that r may become the buzzing bee sound, s may be the punctured tire sound, r may be the car starting sound (made by the grinding noise when the starter button is depressed), sh may be the train sound, f may be the angry cat sound, etc. The main importance of these names is to reinforce the auditory image of each sound and make it as vivid as possible. Even with older children and adults, names for the sounds seem to facilitate the learning process, so that the s lisper may have his error named as the whistling s or the hissing s, whereas the correct sound is called a sharp clear s, etc.

b. If the error is one that the correctionist can stimulate, and the skilled correctionist will develop a considerable facility at this, practice can be given in discriminating between the error and correct production of the sound. The teacher reads lists of words, in some of which the error is simulated, or reads a story in which the error is produced part of the time. The child is required to listen carefully for each sound error and signal each time one is heard.

c. If recording equipment is available, the student and the speech correction teacher can record lists of words together, the student reading the word and making his error, and the teacher repeating the same word with the sound made correctly. During the playback, the student
listens carefully and compares the sound of his word with that of the teacher. Older children and adults may be required to write reports of such listening experiences, in which they describe as exactly as possible the characteristics of the two sounds as they heard them, and the differences which they were able to hear.

d. Sometimes a child will detect an error in the speech of another child but fail to hear the same error in his own speech. Recordings can prove very helpful in a case of this kind. Both persons who make the error can be recorded together with the teacher or some other person who produces the sound correctly. When listening to the record, the child can hear that he really does make the same error he had noticed in the other person, and how different the speech of both of them sounds from the person whose speech is free of the error.12

It has been pointed out by Wood that without speech the returns from oral drill, on the part of the student, will be small. He further recommends that all students at the secondary school level should have some work in developing speech-sound consciousness so that they may detect their own inaccuracies when they occur and thereby become self-correcting. Where some work is done with all students in articulation of sounds and words, there is less likelihood of a student with a serious problem being teased or becoming sensitive, because of having to do special work.13

One of the most effective attacks on articulation problems consist of a combination of the phonetic method and the auditory stimulation method. The first consists of

telling the student how to place his tongue in relation to his lips, teeth and hard palate in order for him to produce certain sounds. Many speech correctionists recommend having the student observe his own oral movements in a mirror. The second method consists of having the student watching the teacher and listening while she produces single syllables containing the sound with which he has difficulty. The emphasis of this method is upon listening.

One of the basic procedures in teaching the student to discriminate between two sounds he is confusing, is for the teacher to present orally a list of syllables and have the student respond with a signal when he hears one sound and to use a different signal when he hears the other. It is recommended that the teacher use nonsense syllables at first in order to eliminate the association of meaning which is likely to call forth the responses which have been habitual with the student. If this method is used with lower elementary students, games will need to be provided in order to sustain attention. Names of objects on picture cards usually work quite well. It will probably be more efficient if the work is done individually, but a small group of five or six students with similar problems could be handled effectively in drill situations.14

It is recommended by nearly all speech correctionists that the teacher start out with sounds the student can already imitate adequately with relative ease. This will give the student the feeling of success when he works on these, and the drill should reinforce his auditory concepts. When the student is able to produce his problem sounds accurately in nonsense syllables, the drill work should be transferred to words and groups of words.

As a rule, it will be better to work on consonant sounds in the initial position first and in other positions after they can be produced correctly there. The student should work on one sound at a time, using words which do not contain more than one of the sounds with which he has difficulty.

The teacher should not expect "overnight" progress. In many cases there has been a considerable lag between the time the work is begun and the time when the student evidences that some of the ear training has taken effect.

Wood recommends if there is no trained speech correctionist in the school, it will be wise to have one or more of the teachers take a course in phonetics and a course in the correction of functional articulatory problems at a university summer session. Articulation difficulties like those described can be improved by a teacher with a minimum amount of training. The person who undertakes this work should be patient, personable, and interested in speech;

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15. Ibid., p. 39.
but, above all, he must have a reasonably pleasant voice, excellent articulation, and a well-trained ear.¹⁶
VOICE DISORDERS

In considering what constitutes a voice disorder it is necessary to come to some agreement concerning what constitutes adequate voice. The following list may be set down as some of the requirements for adequate voice.

1. The voice must be loud enough. A voice must not be so weak that it cannot be heard under ordinary speaking conditions, nor should it be so loud that it calls undesirable attention to itself.

2. Pitch level must be adequate. Pitch level must, of course, be considered in terms of the age and sex of the individual. Men and women differ systematically in vocal pitch level, and children differ from adults.

3. Voice quality must be reasonably pleasant. This criterion is essentially a negative one implying the absence of such unpleasant qualities as hoarseness, breathiness, harshness, and excessive nasal quality.

4. Flexibility must be adequate. Flexibility involves both pitch and loudness. An adequate voice must have sufficient flexibility to express variations in stress, emphasis, and meaning. A voice which has good flexibility is expressive.

Flexibility of pitch and flexibility of loudness
are inseparable, but they tend to vary together to a considerable extent.

With these terms, voice disorders can then be classified into these groups: disorders of pitch, disorders of loudness or intensity, disorders of quality, and disorders of flexibility.

Disorders of Pitch. The term pitch level usually means the general highness or lowness of the voice with respect to the musical scale. Quite frequently individuals employ pitch levels which are unusual, or inappropriate to their age and sex. The eighteen or twenty year old boy who still talks in the high-pitched voice characteristic of a pre-adolescent boy, or the young girl whose extremely low-pitched and rather gruff tones almost suggest the voice of a man, and the lady whose high-pitched voice stands out in unpleasing contrast to the other voices in the room, are all examples of persons with pitch disorders. Such vocal disorders are nearly always badly suited to and usually result in a strain to the person’s vocal mechanism.¹

Disorders of Loudness. Most disorders of loudness are those in which difficulty is had in hearing the speaker in many ordinary speaking situations. The sound they produce lacks adequate intensity. In some cases an individual

may be unable to produce voice for a time. This may be caused from strain, or acute laryngitis. There are certain kinds of pathological conditions affecting the larynx that can result in a more or less permanent loss of voice. In addition, there are persons who are unable to produce voice as a consequence of profound emotional or personality disturbances. These are extreme cases, and the classroom teacher will rarely, if ever, have such a case among her pupils. 2

Disorders of Voice Quality. The majority of voice disorders come under this heading. One of the troublesome things about voice qualities is that they tend to be difficult to describe. The four terms most commonly used are:

1. Nasal Voice Quality which is produced when the vocal tone is strongly modified by resonance from the nasal cavities during the production of speech sounds which normally are essentially non-nasal, i.e., all sounds except m, n, and ng. For these three, of course, the sound must be directed through the nose. If, for any reason, the soft palate and walls of the throat do not perform their usual function of shutting off the upper part of the throat and nasal cavities during the production of non-nasal sounds, the voice is excessively nasal in quality. It sounds to the hearer as though the individual were talking through his nose, and literally he is.

2. Breathy Voice Quality is heard in a voice which seems to have a whisper effect added to the usual vocal tone. It reminds one of a stage whisper. It results from the fact that the vocal cords are not brought closely enough together during

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the production of the voiced tone. As a consequence, a considerable amount of air rushes out through the larynx without being set into vibration by the vibrating vocal cords. This rush of air produces friction noises, not unlike whisper noises, which are superimposed upon the tone resulting from the vibrations of the vocal cords.

3. **Hoarse Voice Quality** which can be heard as a temporary condition in persons who have a bad cold which affects the larynx. One sometimes uses the term "husky" to describe the way the voice sounds. Sometimes a temporary hoarseness may be caused by vocal abuse, as, for example, too much shouting at a football game. Such hoarseness results from a temporary condition of inflammation affecting the larynx and vocal cords. More permanent pathological conditions of the vocal cords can produce a permanent condition of hoarse voice. It has also been found that a hoarse voice can result from habitual use of a pitch level unsuited to the vocal mechanism, particularly a pitch level which is too low for the individual.

4. **Harsh Voice Quality** which has an unpleasant rough, rasping sound. It is often heard in people for whom voice production seems to be a considerable effort or strain. The particular way that a harsh voice sounds to the hearer may vary somewhat with the pitch of the tone. The term "strident" is sometimes used to describe harsh tones of high-pitch. Harsh voice is generally considered to be associated with excessive strain and effort in producing voice, as a result of which there is too much muscular tension in the throat and larynx. That there is such excessive tension during voice production in many harsh voice cases has been verified clinically by the fact that these persons sometimes report fatigue if they try to talk for any substantial length of time. Laboratory research has tended to bear out these clinical observations.

**Disorders of Flexibility.** Voices that have a disorder of flexibility may be adequate so far as general pitch level.
general loudness, and voice quality are concerned but inadequate because they are deficient in expressiveness to a rather extreme degree. These voices are monotonous; that is, there is very little variation in either pitch or loudness. Pitch monotony and loudness monotony could conceivably occur independently, but the two are so strongly interrelated that they usually go together. Often this extreme lack of expressiveness is accompanied by a mumbling, indistinct articulation. In such cases, the picture is one of general inexpressiveness - with respect to both voice and articulation. The person seems to lack any real desire to communicate; he seems to mumble to himself without concern as to whether anyone can understand him.

Some of the things that might cause disorder of flexibility are:

Imitation. Some voice problems, like some articulatory problems, are the result of poor habits. Bad voice habits are probably most often due to imitation of poor speech models. With respect to voice, as well as articulation, we "play by ear," and we usually play the tunes that we have heard over and over. The child whose parent, or parents, speak with extremely nasal voice quality is likely to develop the same fault through imitation.

Psychological Factors. Psychological maladjustments may cover the range from deep-rooted emotional disturbances to the shyness and timidity that seems to be a common characteristic of a considerable number of children. It is a rather common belief that vocal characteristics reveal personality traits. The belief is substantiated by a rather large accumulation of clinical observation and some systematic research investigation; chronic feelings of anxiety and insecurity may result in excessive bodily tensions which
in turn may produce vocal disturbances, such as harsh quality or high-pitch. Deficient loudness may come from excessive shyness, and so on. In all of these cases the voice disorder is only one symptom of a more general problem. It is often one of the most obvious symptoms and may be of sufficient importance to merit special attention. However, the general emotional or psychological problem is the more basic one and must be resolved in some fashion before any great or last-ing improvement in the voice symptom can be expected.

Unsuitable Pitch Level. Although habitual use of a pitch level which is inappropriate to a person’s age and sex and unsuited to his vocal mechanism is, itself, a vocal disorder, it may have more far reaching effects and actually operate as a cause for other types of voice problems. ... constant and habitual use of a pitch level that is ill-suited to the vocal mechanism tends to place this mechanism, especially the larynx, under a great deal of strain. As a consequence the voice may be adversely affected in various ways. This effect seems to be more often the result of too low a pitch level than of a level that is too high. This seems reasonable when one becomes aware of how difficult it is to produce very loud tones at the lowest pitches of one’s vocal range.

Poor Breathing Habits. Breathing for speech should be almost as easy and as relaxed a process as ordinary vegetative breathing. But occasionally a person is found who seems to make hard work of it, involving an excessive amount of muscular tension and strain. Neither very shallow breathing nor breathing which involves excessive tension is likely to furnish the controlled air pressure at the level of the vocal cords which will make possible good voice quality, adequate loudness, and controlled flexibility of pitch and loudness.

An occasional person has a particular type of shallow breathing which contributes to poor voice production. Almost the whole of the expansion and contraction of the torso is restricted to the extreme upper part of the chest. This type of breathing is undesirable, not only because it is extremely shallow, but also because the musculatures involved in this movement are poorly adapted to the controlled expiration of air which is required if the air pressure furnished to the vocal cords is to be steady and adequately regulated.4

4. Ibid., pp. 139-164.
A voice defect is somewhat different than an articulatory defect insofar as the person is likely to be conscious of an articulatory defect, whereas he may not be aware of a nasal voice or a high pitch level and the unpleasant effects that it has on his listeners. If the teacher has access to recording equipment, so that the pupil can get a more accurate notion of how his voice sounds to others by listening to a recording, this problem is frequently solved rather simply. If recording equipment is not available the teacher may motivate the child in some other way to attempt correction of his speech defect. The teacher must keep in mind that the goal to be attained should not be placed too high, so that a failure occurs in spite of hard work — simply because too much was expected.

**Good Breathing Habits.** In the general program of training for adequate voice production the teacher must take note of the student's breathing habits for speech.

A large portion of the students with voice defects may be found to have adequate breathing habits. When voice defective children have markedly shallow or badly controlled breathing, or exhibit a considerable amount of excessive tension, better breathing habits should be taught. In any case of doubt, it is better for the teacher to spend some time in building good breathing habits than to neglect the matter.
The teacher should train the child who has poor breathing habits to practice easy expansion and contraction of the entire torso for inhalation and exhalation without excessive muscular tension and effort. This will insure that the expansion of the torso in the lower chest and abdominal region is not restricted. The teacher could use various tones and loudness levels in this work to make sure that adequate air pressure is produced for the whole range of pitch and loudness required in speech.

It is generally recognized, that certain vocal disorders, especially harsh voice quality, may be caused by excessive tensions in the muscles of the larynx and throat. In producing good voice, the child should not be aware of special effort and strain. He should avoid unnecessary constriction of the throat and mouth passageways during voice production. Singing teachers talk about developing an "open throat" and "open tones." So far as the throat is concerned, the desired result is obtained if the relaxed, easy voice production is achieved.

Williamson found that all but a few of his nasal voice cases achieved good voice quality and eliminated excessive nasal resonance as a consequence of training which emphasized wider mouth and jaw openings and greater jaw and lip activity.5

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If the oral passageway for the sound is constricted by a close jaw position, considerable nasal emission of sound is much more likely to occur. An open oral passageway for the sound is important for adequate loudness of voice and good voice production in general.

The techniques recommended by Curtis for the teacher to use are:

1. With some kinds of voice practice, isolated vowels make better practice material than connected speech with which to begin acquisition of the new habit. This is particularly true when practice is first begun on a new pitch level, when practice is being given in easy, relaxed vocalization, or when any new voice quality habit is first being taught. In many respects this is similar to the practice with isolated sounds in teaching a new articulatory habit. It provides a simpler, easier situation in which to teach the new habit.

2. Voice habits, like articulatory habits, are learned largely through imitation of what the pupil hears. Auditory stimulation is thus the basic technique for teaching a new voice habit just as it is for teaching the correct articulation of a speech sound. The teacher will bombard the pupil's ear with the model that he is to imitate. He will learn correct loudness through imitation, good flexibility and expressiveness through imitation, the correct pitch level through imitation, etc. Throughout all of the voice retraining, as throughout all corrective work in articulation, auditory stimulation is the basic technique used at each stage of training and to supplement any other procedures which may be employed.

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STUTTERING

Stuttering is possibly the most striking of all speech defects, and the most difficult to describe or treat; it has stimulated the most research and has aroused the most controversy as to its possible causes. Since there are more than one million stutterers in the United States alone, and since approximately one per cent of the school population (or one out of every hundred students encountered) is afflicted with this disorder, it becomes a subject of universal interest and importance to school personnel.\(^1\)

Johnson describes stuttering as an "anticipatory, apprheensive, hypertonic avoidance reaction."\(^2\)

In other words, stuttering is what a speaker does when (1) he expects stuttering to occur, (2) dreads it, and (3) becomes tense in anticipation of it and in (4) trying to avoid it. What he does in trying to avoid it amounts chiefly to a complete or partial stopping of speech. All this is to say that stuttering consists, as a matter of curious but plain fact, in the stutter's attempt to keep from stuttering - to prevent the occurrence of something he expects, dreads, and would rather avoid.\(^3\)

Van Riper says stuttering is "a disorder characterized by blockings, prolongations, or repetitions of words or syllables, sounds, or mouth postures, all of which together with contortions or devices used to avoid, postpone, disguise, start, or release the speech abnormality produce interruptions and breaks in the rhythmic flow of speech."\(^4\)

Speech pathologists are agreed that there is not just


\(^3\) Ibid., p. 182.

one cause of stuttering, but rather there may be many factors which may contribute to the development of stuttering. Surveys show that no two stutterers stutter alike and no one stutterer remains the same from time to time. Many stutterers are able to read much better than they can talk, while others have their greatest difficulty in reading. Stuttering varies from individual to individual and from situation to situation. Most stutterers have good days and bad days, good moments and bad moments; because these periods of fluency vary in duration, the stutterer is under constant strain and suffers from anxiety even in the periods when he encounters no speech difficulty. It probably would be of the utmost value to the teacher to know how stuttering may develop. This knowledge will be imperative so that she may keep the defect from developing into a more severe handicap. Knudson described it quite aptly when she stated:

"The young child with nonfluencies does not, as a rule present nearly so bewildering and complex a problem as the older child or adult. The disorder begins in a form sometimes termed "primary" stuttering, which is characterized by easy repetitions and prolongations of the initial sound of various words. The child is usually aware of these repetition; they are made without tension, and may sound like mon-n-n-n-nomy - I-I-I. Such repetitions are common in all young children and usually within the realm of normalcy in the process of speech development. Whether these repetitions remain normal nonfluencies or develop into severe speech deviations depends to

a large extent upon the parents, teachers, and others around the child and upon their sensitiveness to his behavior. Sooner or later, as a rule, someone will either tell the child to stop "stuttering," or will show by his own nervous reactions that he is displeased with the child's speech. As soon as the child becomes aware of this social disapproval of his speech pattern, he attempts to do something about it. The child begins to force or struggle in his speech efforts. He increases the tension in the muscles of his mouth and uses unnecessary force in attempting to get the words out. As soon as the child recognized the unpleasant aspect of his speech, he begins to fear stuttering. This fear may first be related to a general situation, or it may be related to a specific word on which trouble has previously occurred. Gradually, these fears spread to other words and situations, and the stutterer begins to devise tricks and ways to reduce or hide this unpleasantness. Practically every high-school student or adult exhibits such devices in either voluntary or automatic form, and they are frequently observed in young children.

The therapy for the young child who may be developing nonfluent speech is much different from the type of therapy given a grade-school or high-school student who has developed the severe avoidance reactions and personality maladjustments associated with what is commonly termed "secondary" stuttering symptoms.

At the high-school level, much of the maladjustment problems of the students who stutter seem to be greatly accentuated. Knudson made the following suggestions as helpful guides to secondary-school personnel in dealing with the speech handicapped students.

1. Principals and teachers should help to bridge the gap between elementary and secondary school and

6. Ibid., pp. 41-42.
help the student to make a successful transition into his new school environment. ... As an aid to carrying out this adjustment procedure, it would be advisable to get as complete information as possible about the student; his home background, school record, health history, relations with other children, ability in oral recitation, outstanding talents or assets, and record of any previous speech therapy.

2. Principals and teachers should be particularly aware of the behavior problems and personality maladjustments which are often the results of, or, at least, accentuated by the speech disorder.

These problems may include truancy, over-aggressive tendencies, fighting, or complete withdrawal. Even cases of incorrigibility or delinquency can be often traced to a neglected speech difficulty. This neglect becomes a costly waste to both child and school.

Many adolescent stuttersers with good minds and capabilities quit school as soon as possible because of the many frustrating speech experiences they face.

3. Principals and teachers should encourage the stuttering student to develop his special abilities and personality assets.

All individuals suffer at times from feelings of inadequacy and the need to bolster their morale, but for the individual who stutters the approval of others becomes an even greater necessity.

In the general school adjustment of speech defective pupils, extracurricular activities are of vital importance. Teachers and administrators should make every effort to aid the stuttering pupil to find some means of further developing his special talents along athletic, dramatic, musical, or journalistic lines.

One stutterer was an outstanding athlete. When he entered high-school he made the football team and became a star player. He was a hero in the eyes of his fellow students and his speech took on a corresponding upswing.

4. Principals and teachers should develop a sincere, friendly interest in the pupil who stutters if
they wish to help him.

They should attempt to gain his point of view, establish his confidence through personal conferences, discuss his stuttering objectively, and suggest ways for him to meet the problems that it creates.

Encourage him to talk frankly about himself and listen with genuine interest. It is usually best to say nothing during these conferences that might be interpreted as a rebuke or as disapproval. In this way, complete confidence may be established and much psychological good can come from "talking it out." Practical experience in working with adolescent stutterers has shown that establishing good rapport is of paramount importance. Failing this, nothing else can be accomplished.

5. Principals and teachers should know how to deal with the oral recitation problems of stutterers.

The attitudes of stutterers toward school and education generally seem to be determined to a significant degree by their experiences in oral recitation. In a study made by the writer on this specific phase of the stuttering problem, the seventy-two stutterers interviewed reported that, on the whole, their oral recitation experiences were not conducive to attitudes that facilitated learning. The students feel that the teachers' methods and policies were often unsatisfactory and frequently unfair. The seriousness of this situation becomes apparent when it is recognized that the experiences of stutterers in connection with oral recitation are often more detrimental than beneficial as far as general personality development and speech developments are concerned.

These facts constitute problems for each person on the school staff and particularly for the classroom teacher, since it is he who most directly determines the nature of the experience which the stutterer undergoes in oral recitation.

What procedures then should be followed? Should students who stutter be excused from all oral work? Should some special consideration be given them in regard to oral recitation? Should they be required to do extra written work? These are a few of the questions that may arise.
Since all stuttering pupils differ in degree of severity or emotional attitudes, each individual must be considered separately. Any student, however, who can recite with comparative ease and comfort should do so. For the many who cannot, certain modifications in the procedure should be made.

The pupil may be excused only from certain types of recitation. A high-school senior did fairly well in conversational speech but found oral reading especially difficult. She was required to read a long poem assigned by the English teacher who did not realize the severity of her difficulty. The girl read very poorly and had severe blocks which only served to increase further her feelings of frustration and embarrassment. Had she been allowed to choose a much shorter selection or to tell something about the poem in her own words, it would have been more advisable in this particular instance.

Some students may not be able to give entire book reports or make long oral recitations until they have had more help with their speech. In severe instances it may not be wise or practical for either the student or the class. All stutterers, however, can give "yes" or "no" responses or very brief replies in order not to feel ignored or excluded from the group. This method will also hold them to a preparation of the subject matter; for, if a student is not called upon to recite, he loses the motivation for study and his grades suffer accordingly.

One plan that a number of stutterers seemed to favor was to call on them to recite only when they volunteered to do so. This plan, however, would need to be definitely agreed upon by both the teacher and the pupil. The stutterer would thus be relieved of the anxiety and mental strain of wondering when he would be called upon, and he could give more attention to the subject matter at hand.

The teacher should not assume that the stutterer is inferior mentally because he cannot express himself fluently. The average intelligence of stutterers has been found to equal that of the rest of the population. The writer found that sixty-two of the seventy-two stutterers interviewed felt that they made poorer oral recitations than their intellectual ability would warrant. Approximately fifty per cent admitted having given the wrong answer or having said, "I don't know," in order to avoid a speaking situation. Teachers
should be especially cautious about reprimanding a student who refuses to recite or who gives the impression of being continually unprepared until the cause of his reticence is determined.

It is especially desirable to prepare the stutterer emotionally and intellectually to meet as many speech situations as possible. He should in no case, however, be forced to recite. It would be wiser to instill in him a desire to take part in situations requiring speech. He should be encouraged to take part in many informal discussions in which a minimum of tension is involved. Emphasis should be placed on informal, casual, spontaneous speech whenever possible. It is particularly advisable for the teacher to have the pupil use his own speech problem as a topic for themes or oral reports. A certain degree of informality in the classroom is desirable so far as oral recitation procedures are concerned. Teachers especially trained to handle stutterers have found it valuable to send them on practical speech situations, such as purchasing errands, paying bills, using the telephone, or any situations requiring responsibility and initiative on the part of the stutterer. If these situations are chosen wisely, they will tend to build up the stutterer's self-confidence in a speaking situation and will lessen his fear of going into everyday speaking experiences.

The teacher must become adjusted to the pupil's way of speaking and learn to react to it unemotionally. A stutterer should never be hurried during his efforts at speaking, nor should an attempt be made to say the words for him. Irritation, impatience, or an expression of embarrassment or boredom on the part of the teacher or anyone else listen to him in a relaxed attitude, so that there will be no feeling on his part that his difficulty is distressing the listener.

6. Principals and teachers should avail themselves of all resources and facilities in the interest of the stuttering pupil.

Since stuttering is a complicated disorder, whenever possible it should be treated clinically by a thoroughly trained speech correctionist.

The primary aim of speech therapy is not to get the student to speak without stuttering but to teach him to stutter in an easy and effortless a manner as possible. He should never get the idea he is being
instructed not to stutter, for this would only tend to intensify his fear of stuttering and result in more severe "blocks." It is best not to compliment a student for not stuttering; it would be better to praise him when he handles his speech calmly and with little tension.

Therefore, the task of all school personnel, since they cannot be expected to treat stuttering clinically, is to aid the stutterer in developing an objective, matter-of-fact attitude toward himself and his general personality development. In many instances an intelligence has literally been saved for society because someone in the public school has met with true understanding the challenge presented by the stutterer.7

The following "Open Letter's" should prove valuable to the classroom teacher by way of giving her further information about the kind of therapy recommended for the young child who stutters. The therapy set forth in these letters is as pertinent to the teacher in the early grades as it is to the parent of the child.8

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Dear Mother:

A letter that attempts to advise all parents of children who stutter is a very poor substitute for individual diagnosis and advice from a person trained in speech correction. But there are not many persons trained in this field in the State of Montana. Few doctors or teachers, even teachers of speech, have had specialized training in dealing with speech defects. So, it may be that this poor substitute will be better than nothing for the many anxious parents who do not have access to a reliable and well-trained speech correctionist.

First of all, as mother of a child who stutters you probably do not understand very well why your child began to stutter. At the onset of the stuttering he probably was normal in every way - just like the other children with whom he played. The speech problem may now be making him a little different; more shy, more self-conscious, less sociable, perhaps, and the growth of such personality traits is alarming to you. You are naturally anxious to help him overcome a habit that you fear will set him apart from others and make him unhappy.

Most authorities have come to the conclusion, after the scientific study of many children, that all young children repeat words and syllables and hesitate to express ideas beyond their ability, when they are not sure that people are listening, or when they are attempting to use words and ideas not familiar to them. When somebody calls attention to this lack of fluency in their speech, then the problem begins. A well-meaning parent or teacher notices these hesitations and repetitions, and labels them "stuttering"! She tries to help by asking the child to go slower or to "think before he speaks"! The child, after a few of such corrections, feels that something is wrong with the way he talks and he thinks that those who are attempting to help him are actually disapproving of him. Fear that he will not please others, or that he is not like other children, can so confuse him and make him tense that speech may become a difficult thing for him. It gets to be a vicious circle. The more fearful he becomes, the less fluent his speech. The less fluent his speech, the more his fear increases.

I have not explained this - the usual source of the stuttering habit - to lay the blame at the feet of the parent or teacher who first became concerned and diagnosed the child as a stutterer. There is no need to feel guilty about such an understandable mistake. Rather have I explained this to point out that the majority of children who stutter are not different from other children. Their tense speech patterns and the personality development that springs from their feelings about the label "stutterer" and come about because of the difference in treatment adults accord them. I must repeat - children who stutter should not be looked upon as defective in any way.

Your main concern, of course, is what can be done now. This depends upon the individual case and on how long your child has been allowed to regard himself as a stutterer. However, the following general suggestions should be considered.

1. DON'T LOOK UPON YOUR CHILD AS A "STUTTERER," OR AS "ABNORMAL" OR "DEFECTIVE." Look upon him as a normal, lovable child. You probably
would deny that you look upon him with any other attitude, yet unknowingly your fears for him may be causing you to treat him as a child apart from other children. A label means a lot to both the user and the one who is labeled. Call a child a stutterer and you get (within limits, but wide limits) a different speech and personality development from what you get if you call him a normal or superior speaker. Dr. Wendell Johnson, famed authority on stuttering, has concluded from his many investigations that calling a normally hesitant child a stutterer is among the most potent causes of stuttering.

2. APPROVE OF YOUR CHILD. A critical or disapproving attitude, even when not verbally expressed, tends to make for strain and tension, which makes it harder for your child to express himself. Make your child feel that you accept him as he is, and that the rest of the community does also. And remember, it is very difficult to hide your true attitude from a child. He will sense it if his way of speaking is a blow to your pride or a source of embarrassment to you. This will make him all the more concerned about himself and will increase the tension that blocks his speech. In trying to avoid the mistake of disapproval do not make the mistake of protesting too much that it doesn't really matter how he speaks. An excess of praise may make him suspicious and fearful.

3. DO NOT CALL YOUR CHILD'S ATTENTION TO HIS SPEECH FLUENCY. Do not show him how to inhale or exhale, how fast or how slow to speak, how to breathe properly, how to place the tongue for certain sounds. Do not tell him to stop and start over again, or to think out what he wants to say before he starts talking. Do not always rush to supply him with the words he wants, but do supply him with words he does not know, but which he may need at the moment. Don't urge him to get words out, such as telling him he knows the word perfectly well, that he just said it two minutes ago. Do not praise him uncritically when he speaks well. This will make him try too hard to speak with perfect fluency or in other words without any repetitions or hesitations. Perfect speech or speech with no repetitions is practically never found in children and adults. So don't set this goal of perfection for your child.

4. ALWAYS LISTEN ATTENTIVELY WHEN YOUR CHILD SPEAKS. Don't give him the feeling that your mind is elsewhere. Make him feel that he is most important and that you always have time for him.

5. DON'T BE ALWAYS ORDERING YOUR CHILD AROUND. Whether your orders are commands or suggestions, their frequency can create a burdensome pressure on your child. Most parents could cut down their "don'ts" and "no's", their "do this" and "do that" phrases by 90% and the whole family would be better off. Consider before you order: Does it really matter? Is not your child's sense of relaxation or spirit of independence more important than having things done your way, or even at times, the right way?

6. HELP YOUR CHILD EXPAND HIS VOCABULARY BY INCREASING HIS RANGE OF EXPERIENCE. The two go hand in hand. Your child needs to have a lot of experience to talk with confidence. Don't live on such a rigid schedule or consider other duties so important that you cannot take the time for spontaneous fun whenever it arises. For instance, you may be driving home from the store with your child when you see a new building going up. There is an experience for your child. Chances are, if you stop the car and tell him that he can watch the workmen a while, he'll protest that he doesn't want to. Some children are shy of new experiences, but your child will welcome the experience if you yourself are interested.
and enthusiastic about watching how bricks are laid (or how a rider goes about saddling a horse, or how they load trucks at the freight depot, or how lumber is planed, or how wheat is threshed, or how anything is done).

7. HELP YOUR CHILD TO BE A PART OF CHILDREN'S GROUPS. This doesn't mean pushing him into their play when he doesn't want to be pushed. Make your home and yard a place where the neighborhood children will gather. Or, if your home is isolated, arrange for other children to stay with you frequently. The better acquainted other children become with your child, the more they will accept him as a member of their group, and the darger of their ridiculing his speech is slight once they have accepted him as a person.

8. HELP YOUR CHILD TO GAIN CONFIDENCE BY PREPARING HIM AHEAD OF TIME FOR NEW EXPERIENCES. Explain ahead of time what will probably happen, and do it in a casual way, emphasizing how interesting new experiences can be. Don't frighten him with the idea that he must act just so and so in the coming situation. Just let him know what to expect. "Play-acting" is an excellent method of familiarizing a child with situations he will not meet in the future. For instance, he will have more confidence the first time he goes to the store alone, or rides a train, or goes to school, or visits a doctor if these have been a part of play-acting games.

9. CONSIDER THE TOTAL ENVIRONMENT. IS IT A HAPPY, RELAXED HOME IN WHICH YOUR CHILD LIVES? Are you expecting the child to conform to adult standards of perfection, not only in speech, but in matters of manners, cleanliness, obedience? How often do you think in terms of creating fun for your child as you would create fun for a guest? Is some adult in the household always tired and worried? Do all the adults in the house play with the children (fathers are especially important)? Keep searching for factors in the home that tend to create confusion or tension. This tension, no matter what kind it is, may be imparted to the child, who in turn may reflect it in what you may call "stuttering".

10. CHANGE YOUR OWN PERSONALITY IF NECESSARY. You may protest that you cannot carry out some of the suggestions made because you are by nature a perfectionist, or that you have always been the nervous type, or that you just cannot get down to a child's level to play no matter how much you want to. But, of course, you want to be a good parent. Well, it is not good for a child to have a parent who is too particular, or cannot relax, or does not know how to play on a simple level. So, you must make the choice.

11. ABOVE ALL ELSE, BE FRIENDLY WITH YOUR CHILD. BE RELAXED. Remember, the attitude with which you do a thing is more important than what you do. You can ignore your child's speech in a way that will call attention to it more pointedly than if you used words. You can follow every sensible rule and suggestion with such tension that it would be worse than breaking every rule in a relaxed way.

You may be disappointed that the above suggestions are no more specific than they are. Pat answers and quick cures are comforting to come upon, but they seldom get the desired results. Work with the above suggestions and I'm sure they will be helpful. Don't, however, expect overnight improvement. Personality change—and speech is intimately bound up with personality—is slow. But do not be discouraged. Write to me telling me about your child and his problem. Knowing particular facts
about your special problem may enable me to give you more concrete suggestions. Write fully and freely and rest assured that your letter will be read with sympathetic appreciation and given full attention.

Best wishes to you and your youngster.

Sincerely yours,

Herbert M. Carson
Director of Speech Clinic
Montana State University
Missoula, Montana
My dear Mrs. Smith:

I thoroughly appreciate your concern over the speech difficulty of Fred, your four-year-old boy. You say that he is in good health, that he is mentally alert, and is generally normal by any standards you know about. I note that you have been careful not to change his handedness, and that he is now generally right handed. But in spite of all this he stutters.

It will interest you to know that the majority of four-year-old stutterers just about fit that description. I want to say to you very nearly the same things I should say to the mothers of thousands of other "Freds". There are some stuttering children who are not like your boy, and their mothers need somewhat different advice. But the "Freds" make up the majority.

Toward the end of this letter I am going to make a few suggestions which I believe might prove helpful. If you are like other mothers, however, you will want to have these recommendations explained so that you might understand clearly what is back of them. For that reason, I shall introduce the suggestions by giving you certain information.

This information has been obtained in the course of several years of research. Certain investigations of very young stutterers made in the past few years have been particularly revealing. In summarizing the main findings of this research, I shall try to emphasize those points which will help you most to understand Fred's problem.

First of all, I want to put you at ease if I can by stressing that the most recent studies have tended strongly to discredit the popular view, which perhaps you share, that stutterers are generally abnormal or inferior in some very fundamental sense. Concerning this point, I should like to make as clear a statement as possible — and I make it on the basis of over one hundred scientific studies of stuttering in older children and adults, and four recent investigations involving over two hundred young children, stutterers and non-stutterers.

The statement is this. From one to two percent of school children are classified as stutterers. I think any expert can be quite safely challenged to examine one thousand children who have not yet begun to speak, and to pick out the ten to twenty among them who will be regarded as stutterers five years later. In fact, I should be willing to let the expert examine the children after they had begun to speak but before any of them had come to be labeled as stutterers. And if he were asked to pick out the ten to twenty who would later be known as stutterers, my best judgment is that he could do little better than make pure guesses, the great majority of which would be wrong. I should not want him to talk with the parents, but he could examine the children as much as he liked in search of the abnormalities that are supposed to cause stuttering.

I should be willing to go even further. I believe any expert can safely be challenged to go into a room in which there are one hundred adult men and women and pick out the ten stutterers whom we shall include in the group. He may use any tests whatever, except that he may not hear anyone speak, nor may he obtain any
information about each individual's personality and mental ability. As long as this information in any way relates to the question of how the person speaks or used to speak, I should be surprised if the expert could make significantly better selections with his tests than he could by means of eenie-meenie-minie-moe.

In fact, I do not know of any way of examining a child so as to determine with any degree of certainty, whether he will ever come to be regarded as a stutterer. So far as I know, stutterers generally are not significantly different from non-stutterers aside from their speech, and aside from the way they feel about their speaking experiences. So far as I know, in fact, even the speech of young stutterers is quite normal until they are diagnosed as stutterers.

This last point is particularly important. I mentioned above that recently five studies have been made, involving over two hundred young "stutterers" and "normal speakers". I have had a hand in these studies, and I must say that as the results began to come in we were frankly puzzled. We soon discovered that it was very difficult in most cases -- apparently impossible in some cases -- to tell the difference between "normal speaking" children and newly-diagnosed "stuttering" children.

We found, for example, that two-, three-, and four-year-olds -- all the children of these ages in a large nursery school, somewhat better than average children by most standards -- spoke, on the average, in such a way that one out of every four words figured in some kind of repetition! The whole word was repeated, or the first sound or syllable of it was repeated, or it was part of a repeated phrase. One out of four words was the average; about half of the children repeated more frequently than that. Another way to summarize the findings is to say that the average child makes 45 repetitions per thousand words. This was the average -- the normal.

Now, what puzzled us particularly was the fact that, so far as we could determine, the so-called stuttering youngsters were speaking as fluently as that. They were, that is, at the particular moment of particular day when their parents or teachers first thought of them as stutterers. We were forced to conclude that the stuttering children were not only apparently normal in general, but also that their speech itself was apparently normal at the moment they were first regarded as stutterers. We simply could not escape the fact that, to all appearances, most of the parents of the young stutterers were applying the label "stuttering" to the same types of speech behavior that other parents were labeling "normal speech".

Then the question came up as to whether this could make any difference. Doesn't a rose by any other name smell just as sweet?

Investigation seemed to show that a rose by any other name doesn't smell the same at all. If you call a child a Stutterer you get one kind of speech and personality development, and if you call him a normal or superior speaker you get another kind of development -- within limits, but they seem to be rather wide limits.

I can illustrate what I mean by telling you briefly about two cases. The first case is that of Jimmy, who as a pupil in the grades was regarded as a superior speaker. He won a number of speaking contests and often served as chairman of small groups. Upon entering the ninth grade he changed to another school. A "speech examiner" saw Jimmy twice during the one year he spent in that school. The first time she made a phonograph record of his speech. The second time she played the record once for him, and after listening to it, told him he was a stutterer.

Now, if you have ever tried to speak into a phonograph recording machine you probably suspect what is true. Practically all children who have done this -- in studies with which I am familiar -- have shown a considerable number of hesitations, repetition
broken sentences, etc. It is easy to see how the apparently untrained teacher misjudged Jimmy who was, after all, a superior speaker as ninth-graders go.

He took the diagnosis to heart, however. The teacher told him to speak slowly, to watch himself, to try to control his speech. Jimmy's parents were quite upset. They looked upon Jimmy's speech as one of his chief talents, and they set about with a will to help him, reminding him of any little slip or hesitation. Jimmy became as self-conscious as the legendary centipede who had been told "how" to walk. He soon developed a quite serious case of stuttering - tense, jerky, hesitant, apprehensive speech.

The second case was Gene, a three-year-old boy. His father became concerned over the fact that now and then Gene repeated a sound or a word. Gene didn't seem to know he was doing it, and he wasn't the least bit tense about it. But the father consulted the family doctor and told him that Gene was stuttering. The doctor took his word for it. (Practically all stutterers are originally diagnosed by laymen - parents and teachers - and experts almost never challenge the diagnosis!) He told the father to have Gene take a deep breath before trying to speak. Within forty-eight hours Gene was practically speechless. The deep breath became a frantic gasping from which Gene looked out with wide-eyed, helpless bewilderment.

These are real cases, and they seem to be fairly representative of stutterers generally. We were exceedingly mystified as our investigations went on and such results as I have sketched kept coming in. Not only were practically all of the stuttering children, at time of diagnosis, speaking as well as the normal children, but we could also find no evidence that they had suffered more injuries and diseases, including birth injuries, than had the normal children. Moreover, in spite of the traditional theory that stuttering usually begins as the immediate result of serious illness, severe fright or shock, and the like, we found that just as an amazing proportion of automobile accidents occur on dry, straight highways, in daylight, in the country, in good automobiles, so most stuttering develops in ordinary homes, under conditions that are not very dramatic, in children who are apparently normal and quite able to speak as well as other youngsters of their age.

These stuttering youngsters were so puzzling just because they were so normal - until we decided to give up the assumption that stutterers are necessarily abnormal. Then the mystery began to lift. Slowly we saw more and more clearly what was staring us in the face. I suspect that we had overlooked it so long - for centuries, in fact - just because it was so obvious.

What we had overlooked, and what we now noticed, was simply that in case after case stuttering, as a serious speech and personality disorder, developed after it had been diagnosed. The diagnosis of stuttering was one of the causes of stuttering, and apparently one of the most potent causes.

I believe I can make this clear and also help you toward an understanding of Fred's problem, if I sketch for you what I should regard as a good method for making practically any child into a stutterer. It is the method used by parents themselves - unintentionally, of course - in bringing about the disorder in their own children. Broadly considered, it is the method commonly used to make children awkward, or timid, or fussy about food, or afraid of the dark or of "doctors, dogs, deluges and demons".

Briefly, the method consists of calling a spade a spatula, and then using it as if it were one. In order to do this, one must steadfastly ignore the fact that it is more effectively used as a spade, but this does not seem difficult for most of us. Applying this principle then, as the parent of a normal child, you will first of all listen closely for the interruptions in his speech. You will hear many of them.
You must be impressed by these interruptions. Therefore, there are five things
that you must quite completely overlook. First, you are not to pay attention to the
circumstances in which the interruptions occur, because if you do the interruptions
will seem to be perfectly natural. Second, you are to overlook the fact that for
quite some time the child has given ample indication of his ability to speak normally
for his age. Third, you must fail to notice that except for the occasional hesitations
or repetitions his speech is apparently all right. Fourth, you are not to be impressed
by his comparatively normal health, intelligence and social development. And finally,
above all, you are not to observe carefully the way other children of the same age
speak under various conditions, for if you do your child will seem to be doing nothing
out of the ordinary.

It is essential, you see, that you be impressed by what your child seems to be
doing wrong. This will make it possible for you to focus your attention more or
less completely, not upon the child and not upon his speech, but upon the inter­
ruptions in his speech. The next step — and this is extremely important — is to
select a name for these interruptions. You want to select a name which implies a
profound but mysterious abnormality, a name that will fill you with worry and dread
every time you utter it or think it. "Stuttering" is just the name you want.

Having labeled the speech interruptions "stuttering", you will react to them as if
they were all that the label implies. This will not be difficult. In fact, you will
do it quite naturally, without realizing that you are doing it at all. By your facial
expression and your tone of voice, as well as by what you tell the child, you will
easily convince him that he is not able to speak normally, or at least that he does not
know how to do so, and that you disapprove of his natural best efforts to speak. In
your zeal to control what you now call his "stuttering", you might even convince the
child that you no longer love him, or at least that you are disappointed in him as a
person.

For the label "stuttering" implies that your child needs help and you, of course,
will respond eagerly to the task of helping him, because, of course, you love your
child. If you are like other parents, you will conscientiously show the child how to
inhale and how to exhale, how fast or slow to speak, how to breathe "with the abdomen"
or "with the chest", how to place the tongue for certain sounds. You will urge him —
perhaps with considerable gusto — to stop and start over, or to "think out" what he
intends to say before he tries to say it. You wouldn't, of course, but some parents
might, shall we say, scold him if he does not speak smoothly after all these "helpful"
instructions. By such means you would succeed readily in setting up in the child
your own attitude of anxiety and disapproval whenever his speech did not proceed
smoothly.

As soon as he has acquired this attitude from you he will promptly supplement your
efforts to help him with his own ingenious attempts to speak according to the standard
of fluency which you appear to demand. He will try hard. He will so want to do the
thing properly — so you will smile again, and tell him he is a fine boy. Naturally,
he will strain. Of course, he cannot strain without holding his lips together tightly,
or holding the tongue against the roof of the mouth, or constricting the muscles of
his throat. He cannot strain in certain ways without holding the breath.

The fact that all this will interfere still more seriously with his speech and make
him appear to be "stuttering" much worse — this fact will only spur him on to greater
effort and encourage you to be even more generous with your suggestions. You will tell
your friends about it and they also will try to help.

In some cases the child finally reaches the point where he is straining practically
all the time and so becomes quite speechless. In other cases, however, in spite of all
that is done, the child still speaks fluently part of the time.

In saying all this, I have not meant to be at all facetious. On the contrary, I
am serious. I have simply outlined for you what may be regarded as the usual story
of how "stuttering" begins and develops into a serious condition. I believe this
information might help you to understand better the problem which you face with Fred. Other factors may be operating in Fred's situation and, if so, the problem will be differently accordingly.

If I have outlined then, in the main essentials at least, the problem with which you have to deal, I believe the following suggestions will prove helpful:

1. It is not likely, according to your own statements, that the speech difficulty is due to any physical abnormality, but as a matter of good general policy, you should take Fred to a physician. If there is something physically at fault, whether it has anything to do with his speech or not, it should be given the proper attention.

2. Do absolutely nothing at any time, by word or deed or posture or facial expression, that would serve to call Fred's attention to the interruptions in his speech. Above all, do nothing that would make him regard them as abnormal or disgraceful. If he has begun to notice his own interruptions do all you can to convince him they are normal and perfectly acceptable. In this, however, do not make the mistake of "protesting too much". You can make him self-conscious about his speech even by praising his speech — if you praise it to excess. Try simply not to evaluate his speech at all, and err, if you must, on the side of approving it a bit more than is justified.

3. In order that you may develop for yourself the necessary insight and a proper sense of proportion about Fred's speech interruptions, you should observe carefully (a) the conditions under which they occur; (b) the fact that most of his speech is fluent and always has been so; (c) the fact that he is, generally speaking, a comparatively normal child; (d) the fact that other youngsters of his age arc, on the whole, just about as hesitant and repetitious in speaking as he is, especially under certain conditions (when they are "excited" or "talking over their heads", for example) and (e) the fact that even when he does not speak altogether fluently he does not as a rule fail utterly or "go all to pieces" — even his repetitions and "uh-uh-uh's" are spoken more or less smoothly (or were before and at the time that he was first regarded as a stutterer).

4. Do not label Fred a "stutterer". If you do, you will have an almost irresistible tendency to treat him as if he were defective and unfortunate as the label implies. It is foolish to risk the probably consequences if under certain conditions (and describe these specific conditions) he repeats sounds or words, says "uh-uh-uh" — or whatever it is he does. This is a matter of such profoundly fundamental importance that I could not possibly emphasize it too much. The way you classify Fred will determine very largely the way you react to him.

5. There are certain conditions under which practically any child tends to speak smoothly and other conditions under which he tends to speak hesitantly. You will find it wise, therefore, to observe the following simple rules:

Give Fred a chance to speak without interrupting him unduly with your own remark let him talk when he wants to if you possibly can.

Listen to him as attentively as you would to a respected adult.

See that his brothers or sisters are not always "bossing" him, or not always talking when he wants to talk.

Read to him whenever you can. In reading or speaking to Fred, be calm and unhurried, enunciate clearly and avoid a high, tense voice. Make this reading fun and companionable. Make it a daily routine — preferable just before bedtime, if possible.

Avoid asking Fred "speak pieces" for company or to "show off" in other ways.

Convince him that you love him and that you enjoy hearing him talk. Be his friend.

Don't say, "No, you can't" or "Don't do that" when he really wouldn't matter if he did go ahead and do what he wanted to. Try to keep "Stop that" and "Don't do that" kind of remarks down to 25% or less of all the things you say to Fred.
Don't keep him in a state of excitement by too much teasing, nagging, bullying, or too much "running and jumping".

When you take him to strange places or ask him to do something that is new to him, prepare him for it by explaining ahead of time.

When he is talking "over his head", be very patient and now and then supply him with a word which he does not know but which he needs at the moment. To a reasonable extent and in meaningful ways help him add to his vocabulary.

In general, try to avoid situations that are unduly frustrating, exciting, bewildering, tiring, humiliating, or frightening to the child.

My last suggestion may sound quite drastic, but I believe it is within the bounds of reason: Be as friendly and considerate toward your own child as you would be toward a house guest.

Unless Fred's speech difficulty is in some way exceptional, or has developed into a truly serious condition, the suggestions I have outlined should prove genuinely helpful. Do not expect a miracle to happen "overnight" - and remember that Fred is human. He - and you, or I, or anyone else - will never be fluent as a faucet. Even the most silver-tongued orator makes an occasional bobble. But if within six months you feel, for any reason, that Fred is not showing as much improvement as he should, I hope you will consult a good speech correctionist - preferably a Clinical Member, or Professional Member, or Fellow of the American Speech Correction Association.

With best wishes to you and to Fred.

Yours very sincerely,

Wendell Johnson

*The American Correction Association is the Recognized professional organization of speech correctionists in America. The present officers (1947) are: President: Prof. Herbert Koap-Baker, University of Illinois, College of Medicine, Chicago, Illinois; Secretary-Treasurer: Prof. D. W. Morris, Speech Clinic, Ohio State University Columbus, Ohio; Chairman of the Committee on Education (the Committee which maintains a running file of the qualifications of members and of available clinical facilities in the country at large): Prof. Martin F. Palmer, Institute of Logopedics, Municipal University of Wichita, Wichita, Kansas; Editor of the Association's Journal of Speech Disorders: Prof. Wendell Johnson, Speech Clinic, East Hall, University of Iowa, Iowa City, Iowa.

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RETARDED SPEECH

The following material was compiled as a supplement to the monograph, "A Child Doesn't Talk."

"The greatest thing the classroom teacher can do for a child with delayed speech development is to create a friendly, sympathetic, calm atmosphere in her classroom. ..."1 The child that has reached school age and is retarded in speech, has probably been subjected to a great deal of pressure from his parents and relatives in an effort to get him to talk. Many parents will not realize the fact that their child is retarded in speech until the time comes for him to start school. It is then that they start demanding, pleading, threatening, and begging him to learn to talk.

It is this sort of treatment that tends to cause the child to feel that he is not liked, wanted or understood. Probably the child isn't stubborn; he just can't accomplish overnight something that most children take years to learn.2

The teacher should try and understand the child and do everything possible to make him feel as much at home in the schoolroom as any other child. She should not criticize his failures, but should praise his successes.


2. Ibid., p. 272.
The teacher will be able to tell to a certain degree the parent's attitude toward their speech-retarded child. If the parent's make it known to the teacher that their child is retarded in speech prior to the child's starting to school, this gives the teacher an opportunity to make an appointment to visit the home and observe the attitudes of both parents and child. If the mother fails to inform the school of her child's condition, she has unconsciously revealed that there is something gravely wrong in her attitude towards the child. Brown points out that any one of the following could be the reason why the mother didn't notify the school.

1. She may be so ashamed of the child's lack of speech that she doesn't want to talk about it.
2. She may be so negligent of the child's welfare that she forgets to tell the teacher.
3. Or, her standards may be so low that she doesn't realize that the child is slow in developing speech. Whatever the reason for a mother's failure to inform the teacher, it will be important for the teacher to discover it.

In a home visit, the teacher should never indicate in any way that she feels that mistakes the parent have made in bringing up their child has contributed to his problems. The teacher should be trying to solicit the cooperation of the parents instead of incurring their resentment.

3. Ibid., p. 275.
When the teacher begins to work with the child's speech, she should remember that her attitude toward the child is an all important factor. Her attitude toward the child is contagious enough to be imparted to all the members of the class. The first words to work with should be common objects or names with which the child is familiar. Such words as baby, boy, ball, dog, girl, car, etc., would be good ones with which to start. If the child should leave out or distort some of the sounds in the words the teacher should not become disturbed. The point cannot be stressed too much that quantity of verbalization is more important than the quality at this early stage of speech development.

"In learning to talk, infants omit final sounds for many months, and the child with delayed speech usually does the same thing." As the child makes progress, pictures may be used, also some means of demonstration which requires action, such as walk, sit, stand, etc. The first words, however, should be represented by actual objects that the child can handle as well as see.4

It is also important to bring the child to use the sounds for which he has the greatest need. As a general rule, the greater the need a child has to use a particular word, the easier it is for him to learn it.

It is recommended by most speech correctionists that

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4. Ibid., p. 275.
the teacher exert firm, but very gentle pressure, to try to increase the amount of speech. The teacher should not penalize the child when he does not talk, but when he makes an effort to speak, he should be praised or given an encouraging smile. As new words are learned, it would be wise for the teacher to get the child to use the new and correctly spoken work in every possible situation. "By helping the child want to talk, and making it easy for him to try, even though at first he speaks very poorly, the teacher may often bring about great improvement in the child's speech."

As long as the child's hearing and intelligence are normal, the effort expended will probably make a noticeable difference. If the child's intelligence is low, then the chances for speech improvement tend to be slight.

As long as the child's hearing and intelligence are normal, the effort expended will probably make a noticeable difference. If the child's intelligence is low, then the chances for speech improvement tend to be slight.

The elementary teacher is likely to have some children in her class who will not talk. "Such children are met with far more often than the type of delayed speech problems previously discussed. They are truly not defective at all since their speech is normal when they are willing to use

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5. Ibid., pp. 275-276.
It becomes the responsibility of the classroom teacher to make certain that the child who doesn't talk during the early grades is really retarded in speech and not exhibiting some emotional problem.

There are often children in the first grade that are simply too shy to talk. Many are too timid to do more than grin, cry or fidget in school for the first two or three weeks. If this should continue for a longer time, it would be wise for the teacher to check into the matter and see what the problem could be. It is not normal for a six or seven-year old child to be unable to make friends with the teacher and with the other children.7

7. Ibid., p. 280.
A CHILD DOESN'T TALK
By
Amy Bishop Chapin, M.A., and Margaret Corcoran, M.A.

When should you worry?
How should you feel about him?
Why hasn't he learned to talk?
What can be done to help him?
Will school help him to learn to speak?
How can you help him at home?

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THE CLEVELAND
HEARING AND SPEECH CENTER

FOREWORD

Wilmot F. Schneider, M.D.

The following pages of this pamphlet have slowly evolved from several years' experience of speech therapists in dealing with children with "delayed speech" at The Cleveland Hearing and Speech Center. It has become apparent to all of us dealing with these "exceptional" children over the years that speech cannot be considered as an isolated phenomenon. Speech is the overt manifestation of the child's total personality make-up. Speech is no longer thought of as some localized defect of the peripheral speech organs; lips, tongue, vocal cords. It is not not something retarded by such a simple thing as "tongue tie". We can no longer think in terms of some localized, minute area of the child's brain as the cause of speech delay. We must know the child as a "total personality".

As you read these pages, you will realize that the problem of speech delay is intimately tied up with the problem of the WHOLE child. You will realize that heredity may well play a role; that environmental conditioning may cause emotional scars and frustrations. You will understand why it is so necessary for all of us at the Speech Clinic to want the complete study of your child, a study which must assay every facet of the emotional, physical and intellectual component of the child's personality. You will understand why the speech therapist, the psychologist

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and the psychiatrist will question you over and over about your child. Each may be
seeking some little, additional thing which may make the difference between success
or failure in treating your child's problem.

The authors, Amy Bishop Chapin and Margaret Corcoran, have sympathetically and
painstakingly brought together facts which will clarify what can or cannot be done
for your child. They have brought out which our latest medical, psychiatric and
therapeutic thinking can contribute to an understanding of the problem of speech
delay. A reading of these pages, however, will give you, as parents, a viewpoint—a
viewpoint about total personality as there may be not only speech delay but also
other emotional maladjustments. Treatment of "delayed speech" may well help your
child toward a total, future, happy adjustment.

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A CHILD DOESN'T TALK

Amy Bishop Chapin*, M.A., and Margaret Corcoran*, M.A.

"Mickey doesn't talk yet?"

Mrs. Killian, the new neighbor, looked concerned as she watches Mickey Smith
playing alone in the sandpile, and Mrs. Smith knew from the tone of her voice that
she had already heard the neighborhood gossip. She knew what they thought about
her son.

"Mickey", she called, "bring the paper to Mama". The little blond head turned.
Large blue eyes which held no expression stared at her blankly. After a few
seconds Mickey picked up the paper and took it to his mother. "You see, Mrs.
Smith thought, "he's not deaf as they say; he hears me and he understands."

This was not a new situation for Mrs. Smith. Almost daily she found it neces­
Sary to prove to someone that Mickey was really all right. She knew, for she had
seen him walk at eleven months and had heard his first words. He had talked a
little before he was two, and then suddenly he had stopped. Now, even when he
cried out at night and she ran to him, he was unable to say what was wrong. He
could only scream and cling to her. He refused to go to bed now unless the light
was on in the hall. Mickey was afraid of many things—of the dark, of being alone,
of animals' and of people.

If only he weren't so afraid of people, she thought; then perhaps he could get
along with other children and learn to talk from them. When they had lived in the
apartment, he had been forced to play alone; and later on, when he had the oppor­
tunity to play with other children, he would just stand back and watch them. If
someone took a toy from him, he would scream or have a tantrum; then a few seconds
later he would quietly go and play alone. Because of these outbursts Mrs. Brown
refused to allow her Johnny to play with Mickey. Then the neighborhood talk began.

Once more Mickey was left to play by himself. Mrs. Smith began to try to help
him to talk. She would say, "Milk, say milk, Mickey," whenever she gave him some.
She thought he might say it, it he knew he couldn't have any until he did.

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Instead he would wildly throw out his arms, grasping for the glass, only to empty it on the floor when he got hold of it. At other times he would refuse to eat at all or vomit what he had already eaten if she insisted that he talk. On day, the day after his third birthday, he said a word. He was holding the toy dog he had received for his birthday when he turned to his mother and said, "Bow-Wow". But almost as he said it an awful look came over his face as if his own voice frightened him. After that his parents tried to get him to say it again, but he became more and more hostile as their efforts increased, so they thought it best not to force him. He seemed to understand what was said to him, but sometimes when his mother or father spoke to him, he would look at them blankly and they had a momentary fear that the neighbors were right.

Mickey's eyes, so cold and unexpressive, seemed to reflect his whole personality. At four he spent much of his time just playing alone. He would build things, string beads or quietly pass the time away at the sandpile. Whenever possible he avoided other people, and Mr. and Mrs. Smith found it difficult to show their affection for him. The child's only show of emotion was in his terrific outbursts when he could not have his way, or could not make his desires known by grunts or gestures. Then his eyes would come alive, as did his whole body, with anger and hostility. More and more his parents gave in to avoid scenes. They stopped having guests until after his bedtime. Because the neighbors talked and complained when he played on the street, Mr. Smith built him a place to play in the backyard—a child's paradise with a sandbox, jungle-gym, and swing. The other children in the neighborhood sometimes would eye the playyard with longing, but for the most part they went on their way, and Mickey was left to play quietly—alone.

This is the story of Mickey Smith. He might be anybody's child. Unfortunately the Mickys are not common enough children to attract the attention and understanding care they require. Children with delayed speech are so normal, so like neighbor's children in so many ways, that it seems unbelievable that they are not talking like other children. They are among the least understood children in the community. It is so easy to compare a child whose speech is normal with a child like Mickey and jump at the conclusion that he is mentally defective. Having made this decision it is so easy to treat him as if he were.

TIME OF SPEECH DEVELOPMENT

Is your child delayed in speech? When should you start worrying about his speech if it doesn't seem to develop normally? Perhaps it would be interesting to outline the stages in which children usually develop speech and language, so that we may be able to see when a child should require special attention.

The first speech sound is usually the birth cry. The child is born with the speech organs ready to make noise. He is also born with the ability to move jaws, lips and tongue, not in the very complicated way which will be necessary to produce speech, but ready for nursing. Speech is not the primary function of these organs. It is overlaid upon parts of the body which are of primary importance in breathing, eating and swallowing.

The child who is only a few hours old is able to cry. He makes strangely animal-like noises when wheeled down the hospital corridor to his mother for nursing. A whole nursery of these children on their way to the average maternity floor sound something like a flock of ducks in a barnyard. They are going through the gestures of tongue and jaw and lips, that they connect with nursing. The sound is something like "yaak, yaak, yaak, yaak.

At around the third month, babies begin babbling. This is a pleasurable pastime of moving vocal organs and experimenting with making the same noises over
and over. It is more than a sound of dissatisfaction, hunger and discomfort connected with the very young baby. The child may hit upon a sound like "mama", but if he does, it is purely by accident. If the mother reacts with pleasure he may continue to produce this sound which brings him attention. However, babbling is not speech. Many children whose speech later appears to be defective go through this stage normally.

At around the ninth month the human baby begins to be able to imitate sounds made by his parents. It is wonderful to parents to hear the child saying "Dada", "Baba" after them. They usually report to the doting relatives that baby is talking. But this isn't real speech, because the child repeats mechanically, and usually cannot imitate the sounds at the appropriate time.

It is usually not until about the end of the first year that any real speech appears. The usual first words are likely to be those which have gained approval from adults—words like "Mama", "Dada", "ByeBye". However, some children may have such a first word as "Cracker" or "Down", "Up", "More", "Milk", etc. Even in the first words the emerging personality of the child is often reflected. If everyone is too busy to notice that the baby is talking or if he is actually told to be quiet, the new word may be lost. Words with difficult sounds such as "r" and "l" are likely not to be understood, and are therefore often dropped, as ineffective weapons in a world of words. It is average to have about three such words, which the child initiates himself, without imitating at appropriate occasions, by the end of the first year. However, it is always wise to bear in mind that the child gets "Mama", "Dada", "Up", "Down", "Milk" and so on by just screaming and pointing will not need speech and may not develop words by the time he is blowing out the candle on his first birthday cake. A certain amount of encouragement on the part of the mother is required before speech becomes necessary.

The vocabulary grows in leaps and bounds in a child whose world is constantly enlarging. Names for things come apparently from nowhere, but, of course, they must actually come from having heard them and from imitation. By the end of the second year the average child has three hundred words and by the end of the third year it is almost nine hundred.

Most of the words in the very young child's vocabulary stand for whole sentences. Thus "doggie" may stand for "I want the doggie", and "Milk" may mean "Give me the milk". The first few words are likely to be the names of things. Then a few action words like "Go", "Fall Down", and so on may appear. Pronouns as "I", "you", and "he" are usually late in developing.

It is always wise to keep in mind that a baby understands many more words than he is able to say himself. We have all seen eighteen-month old children carry out suggestions from the mother that contain many words the child cannot say. This is why experts feel that talking baby talk or in very simplified sentences when reading to young children is a bad practice because children can only imitate what they hear. If you talk baby talk, your child will think everyone talks that way. Remember, he always is far ahead of his spoken vocabulary in his understood vocabulary. In some children full sentences of three or more words appear before the vocabulary has reached the two-year level. Since this is true, it is obviously silly to talk in broken word-jargon to a baby in hopes that he will understand it better than normal speech. Usually we find that girls are more verbal than boys.

If this is the normal development, when should a parent begin to worry if her child has not started to talk at all? Most authorities are agreed that a two-year old child can have no speech at all, and yet if he behaves normally in other ways, he can be classified as normal in speech development. Children who learn to talk at later stages often disregard the steps described above and immediately use short sentences. Most clinics do not consider a child in need of speech correction work in a clinic until he is three.
Always remembers that the statistics deal with the average child. No one can represent the exact national average. The average American family possesses a fraction of a car. The average American family has two and a fraction children. Has anyone every met a "fraction of a child"? Obviously no one can fulfill the "average" in every respect. If your child is slightly behind the developmental scale in speech, and if all other developmental factors seem normal, you probably have nothing whatever to worry about. You should, however, make sure that your doctor agrees that all other developmental scales are normal. You should make sure that the factors of environment are conducive to speech development.

If your child is two or two and a half years of age and is not talking spontaneously (not just echoing you), you have a job of analysis ahead of you; but your child is still within the limits of "normal" speech development. You should check the factors which cause delayed speech and assure yourself of the probable cause or causes, and begin to help him.

Did you really want this child? This might well be the first question to ask yourself. Do you really understand this child of yours? Does his father really love and understand him? Is it possible that you really don't show your love and respect for this child in a way that he can understand?

Every child deserves, and it is his birthright to find, two happy, proud and loving parents. Parents can be consistently strict about some things, they can expect a great deal, but not more than a particular child is able to perform with confidence. The parents can find fault; but is this is not mingled with good times and loving fun, how can the child be expected to feel that he is successful with the people who mean most to him—his own family?

If every child were born with a predictable personality and with predictable likes and dislikes, favoring his mother's side perhaps in looks, or his father's in personality, the adjustment of parents to their children would be a simple task. Unfortunately, children may not really be likened to their parents in many ways. They may not resemble them in looks, personality or disposition. They may even clash with their parents in these ways before they are two years old.

In clinical work we often hear parents say, "He never like me; I'm sure of it". This may be true. It is completely possible that the personalities of parents and child have clashed from the earliest showing of personality traits. However, this is your child, even if he seems unlike you in all important ways. He remains a problem for you to solve. Remember that even two greatly opposed adults can often find mutual understanding and enjoyment. Are all your friends exactly like yourself? Do they choose the same clothes, the same foods, the same household furnishings? Why should your child conform to anyone's preconceived ideas of what he should be? Why should he necessarily respond at the moment you desire it?

Try to look at your child as if he were a stranger. Can't you admire and respect him just as he is? Can't you find anything about him that is lovable? He cannot be all bad. After all, hero horodity is based on his father and mother.

It is hard if you are a conscientious parent not to find exasperating moments and to blame yourself for them. What parent has never for a fleeting moment wanted to escape from her family completely? Our modern city life throws families so closely together and into such confining quarters that family relationships are easily strained. The city also limits the extent to which young children may try their wings within the bounds of safety. Your child may wish to escape at times just as you have. There is no reason for you to feel quilty or to blame him.
Your daily clashes of wills with a very determined child may later give way to
good adult understanding. No one can be a model parent for all stages of child
development. You are a good parent if you are willing to accept the fact that no
one forever pleases you, including your own child. Would you want a child who
would try solely to please you in every way, who had no mind of his own?

Make the best of the early childhood phases, and enjoy them to the fullest.
Today's contrariness and negativeness may give way to the pleasantest stage ima-
ginable in your child's development. If you can find him an interesting and
pleasant person and enjoy being with him much of the time, then your adjustment
to your child is basically good. If you wholeheartedly enter into his new games
and fantasies and see at the same time that his world must grow larger, until the
part you play is constantly growing smaller and smaller, until you are only a part
of the admiring audience, you will succeed in parenthood, in spite of passing
clashes and moments of fury.

Just as no family is exactly an average family and no child is exactly average
there are no parent relationships that are always perfect or always bad. You can
start tomorrow if you feel that you and your child are off to a bad start. Chil-
dren have survived a great many mistakes in their raising. Just sit down and
think through for yourself what pleasures the child gives you and what problems he
presents. Then, look as objectively as possible at him when he is at play. Is he self-reliant? Is he brave—happy—loving much of the time? Then he must feel
a part of your family life. If he seems predominantly fearful, sullen, and with-
drawing from people, perhaps you should try to think to what extent you have been
responsible for these attitudes. Try to reevaluate your feelings toward and the
needs for this child. Remember: that human adjustment is a two-way affair, but the
adults must take the initial steps and make the most of the efforts to better
family harmony. No child can develop the confident use of our complicated modern
language without first learning it at home, needing it at home, and succeeding in
it at home.

CAUSES OF DELAYED SPEECH DEVELOPMENT

Physical Causes. Perhaps the most common physical cause of delayed speech
development is that of poor general health. The child who has been very frail and
has been set back by too much time spent in bed, will be likely to be slow in
speech. He is also likely to be delayed in other muscular activities. If he has
suffered prolonged high fever illness, more severe damage may have been done which
will, in turn, influence the speech development. During his period of recuperation
he probably received a great deal of attention and had little need for speech and
little stimulation for further speech development.

A second physical cause is that of generally poor muscular coordination.
After all, speech requires the use of 78 separate muscles in such a skillful way
that experts have said that it is a wonder that man ever developed spoken lan-
guage at all. The infant must learn in a few months what may have taken the race
of man thousands of years to develop. Some experts point out further that strong
right or left-handedness is also important in early speech development.

It is always possible that the child with greatly delayed speech may not hear
speech accurately or well. If a child is deaf, he may go through babbling stages
normally but not develop speech further. He will not respond to speech or to most
sounds. However, the deaf child will usually respond to handclapping, stamping,
and very loud vibrations such as trains and airplanes make.

We can assume that parents and relatives notice when the child is totally deaf,
but it often happens that children whose speech development is retarded may merely
be hard of hearing—that is either, at birth or because of an ear infection or
Illness they may have sustained at a temporary or permanent hearing loss. This would mean that most of the sounds in human speech would appear distorted or strange and such children consequently would not develop normal understandable speech themselves. The hearing factor should always be checked in a delayed speech case.

Speech disturbances may result, furthermore, from nerve damages sustained at birth or as a result of high fever illnesses, or from falls. One type of central nervous system injury which affects speech is called aphasia. A truly aphasic child will develop no speech whatever after the babbling stages. However, the word dysphasic or partially speech handicapped, is used for those children in whom the damage is not complete. These children have intelligence, can often be taught to speak, but will take a great deal of time beyond that required in other cases.

A final purely physical cause of delayed speech is occasionally found in children whose glandular functions are not normal. The physical symptoms which accompany the speech problem must always be diagnosed by a physician as must the problem of deafness or hearing loss and aphasia.

Mental Causes. It should be pointed out that children who are deficient mentally will develop speech slowly as they develop all other performance skills. These children will also have shown other delays in such things as sitting up, walking, etc. Speech requires a certain degree of mentality. If the child is suffering from a mental deficiency, he will present a picture of a much younger child in most activities, including speech. This is the reason many un informed people think all delayed speech cases are slow mentally. Speech is often used as an index in measuring precocious children. Fortunately, more than half of the delayed speech cases in one large urban clinic are normal or above normal in mentality. Low mentality is a possible cause which must always be considered, but it is very unjust to jump to this decision just because speech is retarded. A mentally deficient child will share the lack of understanding of speech that is found in hearing loss cases and aphasics, but he will not show the same intelligent behavior which they usually show. The mentally deficient child should be treated at the level of his performance rather than at his age level. His speech should help to give an index of this development. However, if his speech is retarded beyond other elements of development, he may require special attention in speech.

Emotional Causes. Extremely sensitive children occasionally show nervous tendencies in their failure to develop normal speech. Children who are extremely shy and fearful will sometimes avoid speech and not attempt it until they are sure of success. Some children will speak only to one or two chosen people and remain mute to all other people. These children need help, and often when speech is enjoyably released, they speak in spontaneous sentences from the first rather than go through babbling and other stages of speech development.

Emotional disturbances are found in children who are extremely withdrawn and prefer to be alone rather than with anyone, including their own parents. These emotionally handicapped children live in a world apart, are seemingly unaware of others, and although they may be intelligent, enjoy the repetition of queer rituals. Such children often become very negative with pressure and rarely improve with praise. They should be observed early by a specialist in child psychiatry for help and advice on home handling, the larger problem of which speech is only a part.

Environmental Causes. Fortunately the majority of cases of children who are delayed in speech development are not apparently handicapped physically, mentally, or emotionally to any great degree. They are merely children who have not been handled well at home.
Foremost among children delayed in speech for environmental sons are those who literally have no need for speech. These children usually have an older brother or sister who talks for them and who announces the baby's needs so often that he feels no need to speak for himself, or whose parents cannot bear to let him lack for anything, who rush to the child the moment he grunts and points to a desired object. It is always to be remembered that it is normal for children to develop speech out of their need for language.

Other sensitive children react very strongly to a home which is filled with pressures and demands upon them. Children who are constantly being corrected when they speak and being criticized and fussed over sometimes fail to develop normal speech. If the home is too filled with general anxiety and insecurity, the baby may react to it all by refusing to talk altogether.

One should always bear in mind that if children learn speech, someone must teach speech. Patience and good fun are part of all enjoyable learning.

TYPES OF THERAPY

The majority of three or four-year old children who are brought to speech clinics for advice on delayed speech development have not had sufficient attention from medical specialists. Perhaps through fear of facing the truth, parents sometimes delay in seeking attention which might calm existing fears rather than substantiate them. Medical and psychiatric treatment, psychological testing and speech therapy may all be necessary. The relatives and neighbors are not sufficiently trained to render effective advice on these matters. Often the family physician or pediatrician will make referral to other specialists for consultation. It is always wise to follow these referrals. It is sheer negligence to guard a child's physical health only.

Medical treatment. The family doctor or pediatrician is in the best possible position to know your child's general health and the history of his development. If there have been no serious or prolonged illnesses which may have retarded him generally, and if his growth and general coordination are normal for his age, you should consult the doctor further concerning possible hearing loss, or improper glandular function.

If your child developed normally at first, had normal speech development and then stopped speaking after a severe fall or a prolonged high-fever injury, your doctor may be able to help you by referring you to a neurologist. All speechless children of three and over probably should consult such a specialist to consider possible birth injuries or congenital or acquired nerve damage.

Mental and Emotional. If you can safely rule out all physical factors, the next step in helping to understand your child's delay in speech would be to see that a qualified specialist is asked to study and evaluate mental and emotional factors.

If the child is to be tested by a psychologist rather than a psychiatrist, it is wise to be sure that the psychologist has had experience with children of unusual development. Most children who are grossly delayed in speech development cannot be fairly tested on the verbal tests of intelligence. Their performance test results are more likely to serve as a more reliable measurement. The psychologist will also ask you many questions about the things which the child can perform alone and with help in the house. It is always well to remember that the evaluation is only a guide to probably capacity of the child. It can never be regarded as final. Some of these children will refuse to perform items on the
test which are well within their ability. After speech has been stimulated and developed, the score may be quite different from that of the first examination, especially in very dependent and fearful children. Many delayed speech cases are virtually untestable on the first visit, but this lack of ability to cooperate should not discourage the parents too greatly. Always remember that the test items are selected for the "average child"—and your child, who is cut off from many experiences by lack of speech, is hardly "average" at this time.

The child psychiatrist, a medical specialist, will ask you many questions concerning the child's physical and general development. Answer those questions with complete honesty. Even if the family doctor has found no difficulty in the child's general health history, the psychiatrist may wish to make further examinations. If you have records from any other specialist, it is helpful to bring them with you to the psychiatrist.

It is the purpose of the psychiatric interview to consider the physical history and the general history of development in the light of possible emotional problems. If the doctor requests further tests, it is absolutely necessary to follow them through. He is trying to be sure that the physical and mental causes can be eliminated. If he finds that they can, he will wish to interpret the child's emotional adjustment and to determine whether or not it is wise to attempt to "push" the child at this time. Decisions to begin speech therapy should be made by the child psychiatrist.

If the psychiatrist feels he can eliminate the possibility of emotional disability, he will probably try to help you solve the simpler environmental problems which arise within your own home. Some of these problems have been discussed previously. Any medication given to a child must be prescribed by the proper medical authority.

Speech Therapy. Some children are brought directly to large civic or university speech clinics for help. Since the symptom of difficulty is speech, parents often come hoping to simplify the difficulty of diagnosis.

The speech therapist is not trained in subtler diagnosis of this type, although he can usually recognize extreme cases. He will usually insist upon completion of psychological and psychiatric examinations before final acceptance of the child for speech therapy. If the history suggests neurological damage, he will ask you to contact your family doctor for referral.

Let us say that the doctors have examined your three-year old child and have been able to eliminate physical, neurological, and severe emotional problems. You have had some suggestions on the handling of environmental problems within your home. It is probable that the child will need some thorough going speech stimulation training, preferably in a group, in which he can proceed according to his level of speech. Be sure the group is small enough to be really valuable to him and that it is expertly supervised by a trained speech pathologist. Be sure that the speech clinician sends a report to your doctor on progress made.

It is wise to be sure that while the child is being helped in the clinic program for children with delayed speech, you are really helping to solve home problems. Often the therapist can only do his best work if these home difficulties are being dealt with successfully. Discuss your problems with the other parents of children with delayed speech and feel free to ask the speech clinician questions.

It is always wise to consider the admission of a child with delayed speech to a group stimulation program as a tentative arrangement. Even when psychological tests and physical examinations seem to point to mild emotional-environmental problems as the cause, the child may not yet be quite ready for help in
such a group. Be perfectly honest with the therapist who is trying to help your
child; concealment and alteration of the doctor's suggestions cannot possibly aid
the child. Be willing to accept the therapist's word if the child is still too
immature for therapy. Be willing also to attempt psychological tests again, even
if the child was untestable earlier.

Above everything, it is wise to remember that the doctor, the psychologist,
and the speech therapist are all trying to help you solve your problem. Each
regards the problem from a somewhat different angle. They may not seem to be in
perfect agreement, but try to carry out the suggestions carefully and attempt to
carry out a program at home along the lines suggested.

THE ROLE OF CLINIC, NURSERY AND KINDERGARTEN

Good consistent handling of a child at home is important, but often parents
are unable to see what treatment is best for their child or how they can stimulate
speech in the home situation without the help of a speech therapist. A three-year
old child who is not talking should be referred to a speech clinic. The speech
therapist considers each child individually and works with him in a situation
most favorable to him. Group speech stimulation has been found successful for
most delayed speech cases. As a result of this technique, in a period of four
months, sixteen children learned to express themselves in spontaneous speech.

In a controlled play situation in a Speech Clinic the need for speech can be
easily supplied. Ample opportunity can be provided for success so that these
children gain confidence in their own ability and grow more willing to come out
of their shell. Here they learn to express themselves first through action, and
gradually more and more through spoken language. The child is put on his own and
merely guided toward normal behavior and expression. In a clinic it is possible
to have a controlled situation and interpretation and help can be given the child
in handling of fears, jealousies, etc. When the child knows that he is accepted
in spite of his behavior, he is free to express his fears and even his aggression.
It is then possible to guide him toward acceptable outlets. The aim of such a
program is to find the cause of the retardation and eliminate it if possible, and
help the child to gain normal speech and adjustment so that he will be able to
make his own way and be happy in school. It is important for the child to have
sufficient speech for acceptance in school when he is of age. For the child who
is generally retarded, entrance in school at the normal age is neither possible
nor advisable. Even for a child of normal intelligence who is retarded in speech
alone, entrance in school with children of his own age is sometimes not possible
unless he has gained adequate speech and social maturity.

The Role of the Nursery School. The speech therapist with the cooperation
of the parents can help to realize this aim. Having successfully begun to talk
in a clinic group, the child's greatest need is an opportunity to play, to fight,
and to succeed. Often in school, especially if no kindergarten is available, he
is thrown into contact with children more aggressive, more able to outdo him, and
the competition may be too much for him. Nursery school is helpful, sometimes
necessary, to give this type of child the social opportunities he needs. It is a
good test which will show how well he will stand the pressure of first grade. It
is not enough just to start him talking. This does not often solve the complete
problem. He must be reassured by repeated success that he is a fine, likeable
person, who can stand on his own feet, express himself with success, get along
with other children, follow others in their interest and play, and sometimes even
lead. This is his graduation from being "different"—his return to normal play,
where laughter and shouting are part of the game.

The Role of the Kindergarten. Kindergarten is an important step in any
child's development. A child who is retarded in speech should go through this

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stage in schooling even if it means entering when he is old enough for first grade. Here, for the first time, his play is confined and he learns to conform in activity and behavior. He cannot choose his own activity, as he did at home and in nursery school, but must follow the suggestions of the teacher and join in group activity. Here he learns to apply himself and acquires use of tools such as coloring and counting to be used later in school. The better prepared he is for first grade, the more secure and happy he will be in school. Kindergarten will give him that security and he will look forward to going on to the first grade.

THE ROLE OF HOME TRAINING

If your child has not learned to speak at the normal age, no one, either medical man or speech therapist, can by a few words or exercise movements suddenly change your child so that he immediately begins to speak. The cause of retardation must be determined, and then the problem can be solved only with the cooperation of all. The parents of such a child must play an important role in starting him on his way to normal speech.

The problem must be approached with honesty and sincerity. Covering up and disguising will not help the problem and can often hurt the child. Retardation in speech does not of necessity mean mental retardation nor does mental retardation mean that the child will not talk. Your child, his relations to you and the other members of your family, and their relation to him must be honestly evaluated. The play situation of home and in the neighborhood or school are also important aspects of the child’s life, and should be considered in studying the whole problem.

First and foremost, the child must be accepted; he must feel loved and admired, an important part of the family. Often the child covers up his need for acceptance by independence. He wants to do everything for himself and shies away from affection. He sets up a pattern and his parents often fall into it, and thus the child’s need is never fulfilled. Interest in the things he builds and praise of his small successes can substitute for the affection he will not accept of that you find difficult to give.

If you have over-protected your child by anticipating his need, you must gradually see that a need for speech is created. You cannot suddenly stop doing everything for him, but you can show him that speech is expected of him and little by little grow deaf to his grunts and ignore his gestures. Make sure that he is doing all the things for himself which a child of his age and mentality should be doing. Show him how to put on and take off his clothes and then let him do what he can, even if it means waiting for him or doing it over again afterwards. Let him climb for things if he wants something from a high cupboard. Don’t be over-anxious about him, for you show your lack of confidence in him and he loses confidence in himself.

Be sure he is playing with other children if it is possible. He needs their companionship and the competition the group presents. Let him fight his own battles even if he loses once in a while. He will have a better chance of winning if you show your belief in him by putting him on his own. Such a child often fears other children and shows great hostility in the classroom. If your child refuses to play with others or mistreats them when he does, these are not signs that he is a “bad boy”, but merely that he is unhappy. Temper tantrums, bedwetting, or extreme fears cannot be considered individually, but are all part of the whole problem. Do not be unsympathetic. He will not get over his fear of children or animals by being forced to play with them. Give him ample opportunity to play with others and let him adjust to them himself.
It is extremely important that you be consistent. Extremes of over-protection or of pushing him toward independence are bound to have bad effects upon your child. Probably the best method would be to follow the check list on last page carefully and if your doctor has assured you that your child is normal, he should respond to this treatment at home.

***** *****

DON'TS

Don't listen to the neighbors and relatives when they say thoughtless things about your child. Let your doctor be your guide.

Don't feel you must apologize for him.

Don't be ashamed of him. Let him know you think he is a fine and important person.

Don't keep him away from other children because he has no speech. They may be the best teachers.

Don't let his speech worry you too much. The child will sense your anxiety and worry, too.

Don't forget that father is an important person in the child's life, too. Be sure that he takes an interest in the child.

Don't compare your child with his brothers and sisters or with the neighbors child.

Don't blame yourself, but start now to try to help him.

Don't let any members of the family "baby" him continually.

Don't be afraid to let him grow up and develop in other ways like any child.

Don't talk baby talk. He probably has a much larger vocabulary of words he understands that you give him credit for.

Don't shout unless there is a known hearing loss.

Don't exaggerate your lip movements in talking to him. This makes speech harder to understand.

Don't wait on him hand and foot because he doesn't speak.

Don't correct every mispronounced word; accept and encourage his speech instead.

DO'S

Do let your child know that you have confidence and pride in him.

Do let him see that his whole family loves and needs him.

Do treat him as if you expected him to speak, and know he understands you when it is obvious that he does.

Do make a game of playing with him and let him watch your face when you talk.

Do make a game out of playing in front of a mirror so that he can enjoy watching you in imitating facial movement.

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Do give him a chance to grow up and take some responsibilities with the family.

Do read to him and show him pictures.
Do talk to him and ask others to do the same.
Do give him a chance to develop his special interest and abilities.
Do talk to him in normal voice and in full sentences.
Do these things, and your child—like Mickey—will learn to play and talk with other children.
CLEFT PALATE

The teacher who may be dealing with a cleft palate child will find many suggestions in the following monograph, "A Manual of Speech Training for the Child with a Cleft Palate," which will be helpful if she has time to work with the child individually by way of correcting his characteristic cleft palate speech. Information contained in this monograph forms a basis for speech therapy in most speech clinics. Whenever possible the teacher should see that the parents of the cleft palate child become acquainted with this information since the parent may be in a position to work with the child's speech at home. By working together, teacher and parent, much can be done to improve the speech of a cleft palate child.
The child with a cleft palate faces many problems, requiring special investigation and treatment.

First of all, of course, one must consider the medical aspect, which involves the matter of general health and the surgical closure of the palate. It also involves possible plastic restoration, in the event of facial disfiguration. Dental care also is imperative. The dentist's work will improve the general health of the child, and also will improve facial contour. Maximum benefit will result only if he is contacted early. The dentist must follow the development of your child's dentures from the time the first tooth appears.

The purpose of this discussion, however, is to explain many of the speech problems to be encountered by the child with a cleft palate, and to outline steps which will help him to overcome these problems. Sometimes surgical repair of the lip and mouth will restore normal speech, if the cleft is slight, and the repair is made very early in the baby's life. More frequently, the patient retains the disagreeable nasal quality of cleft palate speech even after the palate has been surgically restored. Without the repair of the lip and palate, normal speech in the full sense is impossible, but it also must be remembered that surgery will not always automatically produce normal speech.

When Should Speech Training Begin?

Most surgeons recommend speech training as soon as the palate heals, after the operation. If, for some reason, this operation is delayed, limited speech training may be attempted prior to surgery. Even before the operation the child may be taught better control of the breath, and may learn the correct placement of the tongue, teeth and lips, for the production of sounds. In the event that the operation is postponed, the method of speech training will be the same as that outlined more fully, later in this paper. The training will be easier after the repair has been completed. Massage of the palate and lip often may be started after the incision has begun to heal. This procedure should be under the direction of the physician, and, if done correctly, may prevent the formation of scar tissue and may aid in a more normal development of the palate, the first step toward speech training.

What is Cleft Palate Speech?

Better results will be obtained from this program if the parents of the child with a cleft palate know how the speech deviates from the normal. Cleft palate speech is characterized by the escape of air through the nose, resulting in an unpleasant, hollow intonation, and in the weak production of those sounds which require the building up of air pressure in the mouth. Vowels are nasal, and

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the following sounds are likely to be distorted or replaced by other sounds: \( h, b, t, d, g, sh, ch, f, v, th, y, k, \) and \( g. \) Facial grimaces often accompany the child's speech. He may pinch or draw in his nostrils in an attempt to control the breath stream. The accompanying diagram, Fig. 1, is designed to explain how these problems arise. The picture is a side view of a normal palate. When a person with a normal palate tries to prevent the escape of air through the nose, the muscles of the palate and the back and side walls of the throat all contract to help close the opening between the throat and the nose. Thus, if the palate is too short, the muscles cannot contract enough to effect closure, and the air escapes through the nose.

![Figure 1](image_url)

If the air escapes from the mouth through the cleft into the nostrils, the quality of the voice will be nasal, and many of the consonant sounds will be weak because of inadequate pressure in the mouth. These speech qualities persist after the repair, if steps are not taken to train the muscles of the palate and throat. Muscles of the throat will be developed by the blowing and speech exercises to be discussed later. These exercises should help effect closure of the passage into the nose during speech. However, if the nasal quality is not decreased after extensive practice over a long period, further surgery or a prosthetic appliance should be considered. Your doctor will be able to advise you about these steps.

**What are the Objectives of the Speech Training Program?**

In a speech training program five things must be accomplished:

1. The muscles of the soft palate must be strengthened.
2. The child must be taught to direct the breath stream through the mouth.
3. The child must be taught to increase the flexibility of the lips.
4. He must be taught to hear the difference between the correct sounds and the errors he is making.
5. He must be taught to make these correct sounds.

**What Can the Parent Do?**

Some of your work must be done while the baby is very small. In the first place, he should be permitted to nurse in a normal fashion, if this is at all possible. Sucking activity is important in the development of the muscles of the mouth and throat, and it contributes to the general welfare of the child. A
specially constructed nipple may be found necessary, if the cleft extends through the hard and soft palates. Your physician should be able to advise you as to whether your child needs a nipple with a larger hold, a larger nipple, or a nipple with a special shield to prevent the milk from going into the nose. As the repair of the lip and palate progresses, a nipple with a smaller hole may be indicated. The child should be allowed to perform the regular chewing activities of the normal baby. He also should be encouraged to coo and babble and attempt speech, when the time comes. All of these activities are of vital importance in laying the foundation for later speech training.

What Exercises Should be Used First?

The first group of exercises may be used after the repair of the lip, to increase the amount of movement of the lips:

1. Instruct the child to pucker his lips, pushing them forward as far as possible. He may pretend he is pouting.

2. On a count of one-two, have him open his mouth wide, and then close the lips firmly. Do this ten times or so during any one practice period.

3. Have the child pretend he is a funny little clown, first rounding his lips in the "oo" sound, then spreading them back in a wide grin, for "ee". Exaggerate movements. Start slowly and increase the speed. Do this about ten times. Then have him try "ah", "ee", and "oo", watching the funny faces he makes in a mirror.

4. On a count of one-two, have him raise his upper lip slowly, showing his upper teeth.

5. With teeth closed, have him say with exaggerated lip movement, "ee-oo, ee-oo" ten times. Then have him try "wee-woo."

6. Show the child how to puff out his cheeks. Perhaps he has seen someone blowing a tube, whom he might imitate. Have him puff out his cheeks, release the air, then try to puff out his upper lip only.

7. On the count of one-two, have him bite first his upper lip, then his lower lip. Start the counting rather slowly and increase gradually, as the child becomes more proficient.

8. Have the child draw back first the right, then the left corner of his mouth. He will benefit by watching his reflection in a mirror. He may like to think of these grimaces as lop-sided smiles.

9. After he has mastered the above exercises, have him practice holding the position and talking out of the corners of his mouth alternately.
10. Have him pretend he is a popper of corn. As each little kernel explodes, he is to say "Pop!" He can begin very slowly and increase the speed until he is saying, "pop, pop, pop, pop, pop," in rapid succession. There should be firm closure of the lips. A small piece of paper held before the lips will add interest. If he is directing the stream of air through his mouth, the paper will move away from his mouth with each "pop".

11. Have him imitate the popping sound that is made by a cork being pulled from a bottle, being sure he has filled his cheeks with air first.

What Exercises Should be Used Next?

The second series includes direct blowing exercises. The following blowing exercises serve as an introduction to further speech work. The purpose in each of these is to direct the breath stream through the mouth rather than the nose. In this manner, when the time comes for teaching sounds, the child will be able to use the air as it comes through the mouth for the production of clearer sounds and to avoid an unpleasant nasal quality. If the child succeeds in any of the following group, he is using the soft palate, and directing the breath through the mouth:

1. Give the child a straw and a glass of water. Have him blow down the straw, making bubbles in the water. Also let him suck his milk through a straw. At first use a straw with a rather large hole. As he is able to drink or bubble through a straw, use one with a smaller opening.

2. Give him toy horns and whistles to blow, being careful that those used at first do not require too much air pressure.

3. Teach him to blow soap bubbles with a bubble pipe.

4. Get him several party favors, the kind that unroll as they are blown. These should be available at novelty counters where party favors are sold.

5. Let him blow shells or flower petals, floating in a bowl of water.

6. Teach him to yawn. This is best done before a mirror so that he may watch the palate rise.

7. Show him how he can make a pinwheel turn by blowing on the blades.

8. Let him fill a balloon with air. This is one of the most difficult exercises, so the parent should first test the balloon to make sure it is not too stiff. You may even blow it up and deflate it a few times before giving it to the child. As he first attempts
to fill the balloon, the child may find it necessary to pinch his nostrils. When he has inflated it, have him attempt to hold the neck of the balloon in his mouth preventing the escape of air through his nose.

9. Place a small feather, or a ping-pong ball, on the table and show the child how to blow it. Make a game of it, designating the number of puffs he must use to get it from one side of the table to the other. As he succeeds, increase the weight of the feather or ball.

10. Let him blow out candles or matches. At first the candle may be held a few inches from his mouth. Increase the distance until it is a foot away. Place three candles in a row, six inches apart, and a foot away from the child. Have him blow out the middle one.

11. Give him a bamboo pipe or pea shooter and let him blow out rice, peas, or beans.

12. Cut a piece of light paper two inches square. Place this against a vertical surface at mouth level. Hold it with your fingers against the surface, and direct the breath stream upon it. Remove your fingers, and attempt to hold the paper in place by the breath stream alone. Let the child attempt this feat. This is a very difficult exercise and should not be attempted until the child can perform most of the foregoing exercises. When he does succeed in holding the paper in place, he should work to increase the length of time he can keep the paper in position. The time should be measured and recorded in seconds. A chart recording his daily performance will be helpful.

13. Make up games involving the blowing of paper airplanes across a map, paper boats on a lake, etc.

14. Another exercise the child may enjoy is the displacement of water from one bottle to another by blowing through a glass tube. Flasks, rubber corks and glass tubing are available in most chemistry laboratories. (see Fig. 2).

![Figure 2.](image_url)
15. Crease a piece of paper. On it place light feathers or pieces of Kleenex rolled into little balls. As you hold this at a slight incline under the child's nose, instruct him to blow, trying not to displace the paper or feathers. Or, bend a small filing card half an inch from the end, and bend this half-inch back once more and paste fine strands of silk thread on this edge. Hold it under the child's nose. If the air is directed through the nose, the silk will move, (see Fig. 3).

![Figure 3.](image)

16. For contrast of nasal and oral emission of air try the following: Have the child close his lips tight, and sniff in and out through his nose. Then hold the nose between your thumb and forefinger and ask him to emit a steady stream of breath through the mouth which should be nearly closed. Test this emission with a candle flame. He should be able to bend the flame without putting it out. Then he should pinch the nose and draw breath audibly in and out through the nearly closed lips.

Is A Speech Correction Teacher Needed?

If you have followed these exercises carefully, and the child is able to perform them, you have accomplished the first three of the five speech training objectives. At this point, a trained speech correctionist should take over. The speech training of your child is actually the work of a specialist. If there is not a speech clinician in your community, it would be worthwhile to visit the nearest speech clinic. Most state universities and colleges, and many hospitals support such clinics and give professional advice.

Whether or not you secure the aid of such an expert, you must remember that progress will be slow. If you do place your child's training in the hands of a speech teacher, you must realize that short lessons several times a week will be of little value unless you follow up the work at home. It would be wise, therefore, to visit the speech class, watch the correctionist at work, and request material which will assist you to carry on the child's training at home.

How Should Speech Exercises be Given?

In helping the child with his speech, you should keep in mind that nagging a child about his speech will not be helpful. Your program must be positive. In administering speech drill, it will be well to remember these points:

- progress from those which are
  - no child to those which are
  - "should not be allowed to become
- failure.
2. Practice periods for the child under three should not exceed five minutes. There should be several practice periods during the day. These can be increased in length as the child grows older. A safe rule to follow is that the child should not be allowed to become tired.

3. Preserve the spirit of fun. Make a game of the speech exercises.

4. Use one or two of the exercises over a period of time until the child has mastered them. When he begins to tire of one, take up another. To do one or two well is better than to do many half-heartedly.

5. The blowing and sucking exercises should precede any attempt at speech drills. After the direction of the breath stream is accomplished, they may be continued as part of the speech lessons, and as an approach to the learning of correct speech sounds.

What is Ear Training and How is it Used?

Ear training is the first step in teaching the child the formation of correct sounds. No matter how queer his speech seems to you, it sounds to him like the speech of those about him. He must be trained to hear the sounds you wish him to produce. If he is omitting a sound entirely, your work will probably be easier than if he is distorting it or substituting another sound for it. If you are able to help him in this program of ear training, you must sensititize your own ears to variations in sound.

Several types of ear training are employed by speech correctionists in teaching new sounds. In connection with this training, remember that the child's total speech pattern must be considered as well as the individual sounds.

One technique of ear training is known as identification. Here the sound is called not by its letter name, but by the sound it makes—^not "pee" but "puh". It will help if you give the sounds special names. For example, the $ sound may become the fly-spray sound, ch the train sound, k the coughing sound, etc. As you make the sound, go through the movement of spraying flies, making the $ sound many times. Let the child spray flies with you, at first using just the motions, then adding the sound.

In like manner, th may be the sound the gray goose makes when she is angry; y becomes the airplane sound, f the kitty sound, g the sound of a growling dog, and sh the hush-the-baby sound. If you think of little jingles or stories, in which the goose says "th! th!" many times, or the airplane hums y or the tire goes $, as the air goes out of it, you will be making effective use of identification. You should produce a series of sounds, including the sound which the child is learning to identify. The child responds by raising his hand when he hears the particular sound being taught. Or he may tap with a pencil when the sound is produced, or show by any other method that he recognizes the sound.

We can help the child isolate the sound in nonsense syllables, words and sentences. One speech game which never fails to delight little children is "Climbing the Ladder." You may use the fingers of one hand for a ladder which he "climbs"
up and down by touching your fingers with his forofinger, or you can draw a crude
ladder with five or six rungs on a piece of paper. Give the child some pieces of
bright paper. With a pencil, tap the first rung of the ladder and say g—if the g
sound is being given. Climb up and down the ladder as you make this sound. Now,
as you climb again, tell him to place a piece of paper on each step of the ladder
on which you give the fly-spray sound. When you use another sound, he is to put
nothing on the rung. A small paper doll may be used to climb the ladder, and when
you use another sound she falls off and must start again at the bottom of the ladder.

For another game, to be used for any sounds, small pictures of various ob-
jects are cut from catalogs and magazines and mounted on cards which will stand much
handling. Show the pictures to the child as you say the names of the objects. It
is well to repeat this several times so that the child gets a clear sound picture.
If the work contains the sound you are drilling, he is to take the card from you and
place it before him. If it does not contain the sound, he will shake his head or
say "No", and you will place it face down in a stack before you. If he misses a
word, failing to identify it correctly, that card is yours. Count the cards when
the game is over. The one with the most cards wins. You might also give marbles
when he answers correctly.

Using the same cards, ask the child to listen carefully while you are pro-
ducing the sound. Then show him the picture as you say the names of the objects:
"Soap, ice-man, glass, etc." and ask him to tell you where he hears the g or
fly-spray sound—at the beginning, middle, or end of the word. Give him the
pictures to which he responds correctly.

A speech lotto game also may be devised. Duplicates of the pictures on the
small cards are necessary. Paste two across and down on several large cardboard.
This game will be more fun if several children play. The large boards are placed
before the children and the speech trainer holds the small cards, saying aloud the
names of the objects. As identical pictures are found on the large boards, markers
are placed over them and the first one to make a complete row, down or across, wins
the game. If it is too difficult to find two copies of each picture, you might use
letters, and call out the individual sounds. Be sure to say "puh" and "tuh" when
stimulating the child with these sounds, rather than "pee" or "too".

Give the child a ball. Read or recite slowly a list of nonsense syllables:
Sa, se, si, ti, to, soo, or other words, syllables or rhymes. Ask him to bounce
the ball every time he hears the g sound.

Give him a magazine and a pair of scissors. Ask him to cut out five pic-
tures which have names with the g sound in them. These may be pasted in a scrap
book, and a big, colored letter placed in the corner of each page to remind him
of the sound he is to listen for in hearing the names of the pictures on that page.

Show him five objects, the name of one of which has the g sound in it. Then
name the objects and have him pick up the one whose name contains the g sound. If
he can read, give him some easy sentences, a short paragraph or a poem (poems have
more interest than prose material) and ask him to circle or underline all the g
sounds. Or copy similar material, leaving a dash or blank where the g sound should
appear. Read it to him, omitting the sound, and then have him fill in the blanks
with the letter for the missing sound as he reads the sentences aloud, being careful
to articulate the sound as he writes the letter in each case.

Those exercises which are set up for the g sound may be used for any other
sound, and you will find that they bear much repetition. You may find that you must
spend several lesson periods on the identification of just one sound. Even after
you feel the child knows the sound perfectly he may need much more training to differentiate it from the others. If the child has any loss of hearing, the task of identification and discrimination of sounds may present a difficult problem. If he cannot identify a sound after several lessons, speak more loudly than usual. If he still fails, go on to discrimination lessons. However, if he continues to have difficulty, a hearing loss should be suspected. In that case, do not work further on the sounds. Consult your physician regarding the child's hearing, and check with the speech correctionist as to further methods of training.

A second technique of ear training is that of stimulation. The child is given the opportunity of hearing the sound many times. He is literally "bathed" in the sound. This may be done as follows:

1. One manner of stimulation is through the use of picture cards. Find two copies of each picture and make up a set of paired cards. Divide these into two stacks, so that the matching cards are in different piles. Divide one stack between you and the child, or between the child and another player. Place the second stack face down and draw a card. Then say, exaggerating the sound you are stimulating, some such sentence as "I see a saw." Repeat this several times while the child looks to see if he has the card on which there is a picture of a saw. When he finds it, place it with the matching partner and go on to the next. The person who matches all of his cards first, wins. For the h sound, the sentence might be "Who has the hat?" and for sh, "Show me the shoe." After the first few times of playing this game, ask the child to respond with the name of the object. If he misses the word containing the sound you are drilling, the card goes to the bottom of the stack.

2. Another game which affords much opportunity for stimulation of sound requires very simple materials. With a piece of chalk draw on the floor a large circle, about three or four feet in diameter, depending upon the size of the child. (You may cut this circle from newspaper, if you prefer.) Hook two paper clips or safety pins together. Draw a line behind which the child is to stand. Take turns with him, tossing the pins or clips into the circle. Before he throws, chant, "Se, so, sec, now watch me," or Si, sec, so, watch me go." Substitute any other sound for s. If the pins land in the circle, score one for the child, and give him another turn. He pitches till he misses. Then you take your turn. Whoever makes a score of ten first, is the winner. No score is given if the pins are thrown before the jingle is repeated. When this is used for drill after the child can produce the sound, have him repeat the jingle after you, before throwing. He will lose his turn if he throws before repeating the jingle.

Training in comparing a correct sound with his own error is known as discrimination. This can be accomplished in several ways. Let us suppose you are still working on the g sound, and the child's error is the substitution of th, or even the complete omission of the sound.
1. Give him a ball. Tell him you are going to say some sounds. When you say g, or "so" or "soap", as you prefer, he is to bounce the ball. If you say "tho" or "thoap" or th, he is to hold the ball over his head. Your sentence may be something like this: "s—, s—, th—, s—," or "Tho—, so—, tho—, tho—, so—." If he omits the sound, you may prefer to use a combination like "sno," or "no" or "ico" and "I".

2. Sit at the table. Place your hands on the table, and have the child place his hands on the table, too. Tell him you are going to make the sound as in "so". When you say anything else, he is to tap your hands. If he fails to hear an error, or makes a mistake in slapping your hands when you produce the correct sound, tap his hands, giving the sound as you do so. Children find this game great fun, and listen very carefully. You will, of course, give more correct sounds than incorrect.

3. Place the picture cards on the table before the child. When you say the word correctly, he hands you the picture. Use pictures of soap, soup, cigars, etc., when working on the s sound. If you miss a sound, calling soap thoap (or the particular variation of the sound made by the child), he will put the card face down on the stack before him. This exercise can be reversed when the child is drilling to establish the sound.

What Comes After Ear Training?

Only after the child has mastered this material is he ready to produce the sound himself. The first step will be the use of blowing exercises. Going on from this stage, have him pretend he is blowing petals across the water, without actually doing so. After several moments of "getting the feeling" of this activity, you may have him attempt the wh sound. It is very important to impress the child with the blowing aspect of this sound. If he is not able to produce it after several trials, do not continue with this particular sound. Too much emphasis cannot be placed upon the danger of fostering speech habits which are worse than those he already has. If you feel his progress is poor, consult an expert immediately.

When you are ready to start teaching the p sound, you will employ exercises which call for pursing the lips and then blowing sharply. From these exercises, which are simply those of blowing, you introduce the p sound. In like manner, other consonants are introduced, with emphasis upon the direction of the breath stream through the mouth, since this usually is the most acute problem of the child with a cleft palate. You must watch to see that he does not develop some other sound in place of the correct one. In this event, you will be faced not only with the redirection of air through the mouth, but with the problem of teaching a completely new sound. It is especially important that the child learn to discriminate between the sound he is making and the correct one, as described in the above exercises, and then insert the new correct sound in place of his faulty one.
Now, compose a list of words containing the sound you are working on. After the child has learned to produce the isolated sound, he must learn to produce it in words. He should drill on words which contain the sound. Be sure your words contain the sound in all positions—at the beginning, middle and end. If you are drilling the /p/ sound, include such words as "pear," "happy," and "leap." In these words, as you see, the /p/ occurs in the initial, medial and final position, respectively. Use words which are in your child's vocabulary, and provide an ample list of at least thirty words for each sound.

After the child is able to produce the sound, his exercises may become more complex. Instead of saying just words or syllables, he should use the sound correctly in sentences. He may make sentences about the picture cards he has used in previous exercises. He may paste pictures in his scrap book and make up stories about them, emphasizing one sound, or even one word, in each story. For example, a picture of a house might be pasted in a book, and the word "house" used in a drill for the final /s/. You could write down the sentences as the child composes them, giving careful attention to his production of the final /s/ sound. For example, he might make such sentences as these:

This is my house.
My house is white.
My house has a red roof.
My house has two windows.
My house is very big.

Again, you may find a picture of children picnicking or eating lunch at school, or you may cut out a small basket from brown or yellow paper. With a picnic theme a story can be told, stressing a certain sound. Let us suppose the sound is /k/. The child will think of words beginning with that sound, and we shall pack the basket with /k/ foods (it might add interest to call the foods his "k'ration"):  

Mary and Kate had a picnic.
They went to the County Park.
Mother packed the basket.
It held
  cake    chicken    carrots
  candy   pickles   corn muffins
  milk    napkins   paper cups

Lists for young children can be made by using the same sentence over and over, and by cutting out pictures or using the small gummed seals available at ten-cent stores. For example, for the /p/ sound, you might use a series such as this, completing the sentences with cutout pictures or seals:

I like (pic)
I like (apples)  Look at the (slipper)

For the /s/ sound different colored stars might be used, as follows:

I see a (blue star)
I see a (red star)
I see a (silver star)
I see (two stars)
How is a Speech Lesson Planned?

As you go through the described procedure to the point where the child is making a sound correctly in isolation, you may start work on the identification of a new sound. In this manner, you may be working on as many as three sounds in one lesson. Illustrating this is the following outline of a complete lesson:

1. Exercises for muscles of lip and palate.
   These should include about two minutes of one of the blowing exercises, described above.

2. Review of previous sound.
   If this were the k sound, the child might identify all the k objects in the room or picture.

3. Sentence drill on a sound which the child has learned to identify, differentiate and produce. If this were p, the child might read a series of sentences containing a generous number of p sounds. For a child who cannot read, pictures would be used.

4. Production of a sound which the child has learned to identify and discriminate.
   The next sound in order would be t. Use a mirror to aid the child in "scoing" the sound. Say "tuh" five times, and have him repeat it once. When he forms a new sound, you must always be sure he has sufficient pressure to force the sound out. In the case of t, for instance, be sure it actually is explosive. You may even have to go back to a blowing exercise to illustrate the characteristics of the sound. After he can produce "tuh" in isolation, exercise in simple nonsense syllables can be introduced to teach the sound in its three positions.
   The following nonsense syllables illustrate this procedure. The dashes indicate slight pauses.
   Read across the page:

   t-t-i t-i ti i-t-t i-t it i-t-t-i i-t-i it i (i is ce as in feet)
   t-t-o t-o to c-t-t c-t ct c-t-t-c c-t-c cte (c is ce as in bet)
   t-t-a t-a ta a-t-t a-t at a-t-t-a a-t-a ata (a is ce as in art)
   t-t-o t-o to c-t-t c-t ot c-t-t-o c-t-o cto (o is ce as in snow)
   t-t-u t-u tu u-t-t u-t ut u-t-t-u u-t-u utu (u is ce as in June)

5. Identification of a new sound if the child successfully produces the previous sound.
   Decide upon the descriptive name for the s sound, which is next in sequence. Talk about the sound, if you call it the tea-kettle sound, or the snake sound, be sure the child finds the name descriptive. You might read him a story which has a number of s sounds in it, or do another of the exercises described in the foregoing exercises. Such a procedure will make the child aware of the sound in its correct form.
You may not achieve all of these aims in one lesson, because naturally you won't want to go too fast. If you encounter difficulty, or are uncertain as to how to proceed, do not hesitate to consult an expert. When you are able to cover this much successfully, the next lesson will be:

1. General exercises
2. Sentence drill for $t$
3. Production of $s$

In addition to the technique described, there are some special methods which are useful in working with these sounds:

1. Using a small mirror to watch the rise of the palate in the $ha$, $ah$, and $g$ sounds, the child should be aware of palatal movement on these sounds. A cold mirror may be held under his nose as he makes a sound. If there is steam on the mirror, he is nasalizing the sound.

2. He may produce the vowel first by pinching his nostril without covering his mouth with his hand, and then produce it without pinching. There should be no change in the sound.

3. Combining the vowel he is practicing and a nasal sound often provides the necessary contrast. Have him say, "M—ah," "A—n—ah," or "A—ng—ah."

4. Another device helpful to the production of clear sounds is to have the child yawn before beginning phonation. This also is a good relaxation measure.

5. One good idea is to keep a notebook in which to record the child's progress. Pictures and colored pencil decorations will make the book interesting so that he will enjoy looking at it. Record the date of each lesson, what was attempted, and what you feel was accomplished. This book also will be helpful when you return to the clinic. From it, the expert will be able to evaluate the training you have given, and the progress you have made; he may discover that some material has been unsuccessful, and suggest other methods of training, particularly as they apply to your specific case. Your notebook should be kept meticulously up-to-date.

**How Are the Consonant Sounds Made?**

The consonant sounds are the most difficult, as a general rule. Do not be discouraged if your work on these progresses slowly. Speech teachers have different opinions as to which of the consonants should be taught first. Many prefer to begin with $h$, because it is an unobstructed sound. If the child can pant like a dog, he can produce this sound. From $h$ and the blowing exercises, it is easy to go to $wh$ and $v$, this time teaching the child to round the lips as he makes the sound.
The frong sounds, p and t are often taught next. These sounds require the building up of air pressure in the mouth, to be released with a quick explosion. In making the p sound, the lips are shut tightly and the soft palate is raised to check momentarily the issuing of breath from the lungs. The lips are then separated quickly and the breath escapes with an explosive sound. The teeth are separated slightly and the tongue is in a neutral position. The vocal cords do not vibrate. In forming the t sound, the tongue tip is placed behind the upper teeth. Air pressure is built up, and the sound is released quickly with a little puff of air.

The sounds of k and g are more difficult. These sounds are formed by bringing the back of the tongue into contact with the soft palate, building up air pressure, and exploding the sounds. Mirror practice will help here, as the child can watch his tongue movement. This procedure should not be used, however, unless he fails to get the sounds by methods already described. In making these sounds, it is very necessary to build up air pressure and direct the sound through the mouth.

The sounds b and d are next in order. They are formed in much the same way as p and t and are accompanied by vibration in the throat (t is like d and p like b except that d and b are voiced, t and p voiceless).

When teaching the f and y, if the child cannot get the sound by stimulation, show him the correct placement for its formation. These sounds are visible on the lips. The lower lip is drawn upwards and slightly inwards, and placed lightly against the edges of the upper teeth. The tongue is inactive. The breath passes out in a continuous stream and with audible fricative sound, through the crevices between the lower lip and upper teeth, and through the spaces between the upper teeth. The vocal cords do not vibrate in producing f. The formation of y is just the same as for f, except that the vocal cords vibrate on y, but not on f. This difference can be stressed by pointing out that f is a whispered sound and y is voiced. The child may put his hand on his throat and feel it vibrate as he says the y sound. Word pairs may be given to emphasize the difference between these consonants:

\[
\begin{align*}
\text{vaso} & \quad \text{face} & \quad \text{have} & \quad \text{half} & \quad \text{van} & \quad \text{fan} \\
\text{locao} & \quad \text{lcaf} & \quad \text{save} & \quad \text{safe} & \quad \text{view} & \quad \text{fow}
\end{align*}
\]

(This method also is to be used with other pairs, such as p and b.)

When the training of f and y is completed, th sounds may be drilled. In the voiceless th the tip of the tongue is placed lightly against the lower edges of the upper teeth. The breath is emitted in a continuous stream with a fricative sound through the narrow aperture between the teeth and tongue tip. The vocal cords do not vibrate. By adding voice to this sound you get the voiced th as in "then."

The s sound is particularly difficult to teach. The child may be able to imitate the sound as you produce it. If he cannot, begin from the position of the th sound. Have the child say th as in "thin" several times. Now have him slowly draw his tongue further back in his mouth until he is producing s. As he slides his tongue back, be sure the child keeps the breath stream coming out steadily between the tongue tip and the edges of the upper teeth, as for th. As he does this the sound will change from th to s. Have him produce s in isolation several times, in order to "feel" the position. Then try th-s very slowly at first. Return to making s alone. Next, instruct the child to draw air in and out of his mouth while holding the s position. The z sound is achieved by adding voice to s.
What Books are Helpful?

There are many excellent books which contain carefully compiled speech material for drill and practice. For the young child some helpful books are Better Speech and Better Reading (Schoolfield, $1.75), Defective Consonant Sounds (Nemoy and Davis, $4.25) and Speech Sounds for Little Folks (Stoddard, $2.00). All of these books are published by the Expression Company, Boston.

How Successful Can Speech Training Be?

It may be emphasized again that the speech of a child with a cleft palate may be greatly improved by training. Some children with this condition may achieve normal speech. Even though some speech errors may remain after completion of the work outlined, these need not be handicapping imperfections. The child's ultimate success will be the reward and the measure of your patient and understanding help.

What Can Be Done for the Child as a Person?

In addition to providing the child with the very best surgical, dental and speech therapy, parents should also observe these rules:

1. Regard him as a normal child who has been born with a cleft palate, not as "Cleft-Palate-Child". He is normal in more respects than he is abnormal. Therefore, treat him as you would any other child, except perhaps in your attention to his health. He should have the same privileges and responsibilities as other children in your home. Neither indulge nor ignore him and, above all, do not make him unduly conscious of his defect.

2. In talking about the child with other members of the family, or with friends or relatives, try to be as objective as possible. Remember, your child and your friends will react much as you react. Admit the child's defect without attaching undue significance to it. Discuss it calmly. Remember, the child could have had many defects which do not lend themselves so well to repair. Surgery can do much for this child. Don't let well-meaning friends "cluck" over him, for he will quickly sense their concern.

3. Let your child feel that he is loved, that he is secure, and that he is a part of your family group. Never once let him feel that you are ashamed of him or that he is less competent than other members of the family, solely because of his cleft palate. This does not imply that you must smother him with affection or over-protect him. That, too, has ill effects.

4. Teach the child to be objective about his problems. In time he will have to meet the curiosity of his playmates. Enable him to face this situation by planning ahead. Discuss his cleft with him in a simple, matter-of-fact way that he can understand. When other children ask about his scar, he may tell them simply that it is from an operation.

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on his mouth. Point out to him, if he is unhappy about his appearance, that many people are dissatisfied with their buck teeth, crossed eyes or crippled arms and legs. Teach him to laugh at himself, to wear his "burdens" lightly. A sense of humor will save many difficult situations.

5. Encourage your child to cooperate with the surgeon, dentist and speech correctionist. Do not set any standards for his progress in these fields so high that they are unattainable. Such standards make a feeling of failure inevitable. Realistic goals make for a growing sense of accomplishment. "Nothing fails like failure; nothing succeeds like success." It goes without saying that you will give the various specialists your whole-hearted cooperation.

The parent of a child born with a cleft palate faces many problems, but if the child is given the intelligent guidance and training, and the sympathetic understanding he deserves, there is no reason why he should not develop into a normal, healthy, happy, well-adjusted person. There is no reason to be found in the cleft itself why he should not achieve reasonably good, or normal speech, and be accorded normal opportunities for achievement along the lines for which he is fitted.
CEREBRAL PALSY

Cerebral palsy as a crippling condition has been reported for centuries but what caused it or what to do about it has been a mystery until the past few decades. The following statistics are most commonly accepted as to the occurrence of this malady. There are seven such crippled children born every year per one hundred thousand of the population. Of these seven, one will die before the age of six, two will be so handicapped that they will be feeble-minded or completely helpless, two will be so lightly injured that they will be able to live comparatively normal lives, and the other two will be educable or trainable. Such figures mean that there are a great many thousand of these people, both children and adults in the United States.

Since three of these seven children will not be candidates for public school admission, it is the two last-named groups which will occupy the attention of school teachers and administrators. Those with a slight involvement will probably be no problem. They will take their places with other pupils and, aside from slight difficulty in certain physical performances, will require no special attention or care.

The others will have varying degrees of involvement. Those that are more seriously afflicted will be wheel-chair cases, some will walk with crutches or braces, and some will walk with little or no difficulty but will have trouble with manual activities. Probably more than half of them will have speech or hearing difficulties, or both.  

widespread occurrence of this condition, there are few schools
of any size which will not have one or more such pupils en-
rolled. 2

Cerebral palsy is classified according to type under
these headings: spastic, athetotic, atonic, and rigidity. Roughly, 80 per cent of all cerebral palsied children are
of the spastic or athetotic group. These will be the cases
the classroom teacher is most likely to meet in the school.
The spastic child exhibits jerky movements which are re-
lated to some degree of involuntary tension in some or many
of the groups of muscles in activities such as: walking,
eating, speaking or writing. In some cases only one arm or
leg is involved, and the child may have comparatively little
handicap. The child tires easily, and even when he is able
to walk he cannot be as active as other children. When the
muscles used for swallowing are affected, as they often are,
the child drools. Since these muscles are also important
in speech, it is easy to see why speech is often difficult,
slow, and indistinct. Moreover, the tongue may be affected,
and the frequent involvement of the chest muscles used in
breathing also makes the speech labored and jerky.

In most cases the tension may be detected even when
the child is sitting still. In more extreme cases of
spasticity, the muscles have been tense for so long that

2. Ibid., p. 62.
they have become permanently contracted. The child for example may hold the hand, in a cramped and awkward position, and be unable to straighten out his fingers.

The other large group of cerebral palsied is the athetotic group. The athetotic child makes almost continuous involuntary writhing movements. Whenever the athetotic child tries to use his arms or legs or speech organs, there is an increase in the writhing or continuous uncontrolled movements of those parts which are involved make it difficult for him to carry out the act he had planned. Even when he is sitting or lying down the involuntary movement goes on, but it stops during sleep. Such a large part of the athetotic child’s body may be affected that his speech is usually slow, labored, and difficult to understand.

Another type of cerebral palsied child is the ataxic type. The ataxic case has difficulty walking because he loses his balance very easily, and his movements are all poorly coordinated and inaccurate. The ataxic child’s speech may be severely affected because of disruption of the precise muscular coordinations required in normal speech.

The teacher must remember that all children with cerebral palsy experience much greater difficulty when they

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are excited, fearful, embarrassed, or self-conscious. They function with less trouble when they are happy, confident, secure, and unhurried. The influence of emotion on the degree of incoordination is very great.  

Probably the greatest contribution the teacher can make to this child in her class is to develop an atmosphere in which he can function with a minimal amount of tension. If the child shows any concern about the reaction of others to his speech defect, the teacher should discuss the matter with him tactfully. She should let him know that he is appreciated as an individual for any and all talents he has. She should explain that she and his classmates are not unaware of his speech problem, and are glad to be of any help they can. She should also emphasize that he feels worse about his own speech than he should, for it is not the most important thing about him. It might be well for the teacher to have a talk with the rest of the class in the absence of the child with cerebral palsy, in addition to any talking she does to the child alone. She might explain to the class how each of us has his own peculiarities and differences, some large and some small, and how everyone tries to do as well as he can despite any defects he may have.

Many people fairly drip with pity, and another the

4. Ibid., pp. 300-301.
child with sentimentality. Or they turn away their faces so that the child does not see how deeply they feel his affliction. Some persons go so far as to call a child "You poor little cripple!" It must be remembered that no one wants to go through life as an object of pity. Somehow it is double tragedy to know that one is the object of pity in the classroom.

Like everyone else, the physically handicapped individual wants, needs and deserves - to be accepted as a person. He wants to be known for all his abilities and talents, and not just as a cripple. If the child has some outstanding skill, it is relatively easy to pay proper attention to it. The physically handicapped children are usually unable to play in athletic games, and in many cases are unable to perform at all. It is the responsibility of the teacher to find the games in which the cerebral palsied child will be able to participate.

Counseling service and vocational guidance, especially on the high-school level, are necessary implements in the development of any student, but they are of special importance for the cerebral palsied child.

With a better-than-normal mind in a less-than-normal body, the individual concerned sometimes has a great deal of difficulty in finding a possible

5. Ibid., pp. 301-302.
6. Ibid., pp. 302.
vocation and many times his ambition and drive will cause him to aspire to fields which are beyond his capacities. It is difficult to persuade such a youth to do the thing which is practical rather than the thing of which he dreams, but such a service is the privilege and the duty of the school.
Results of the examination of school children indicate that about 15% or one in every six or seven children, has some impairment of hearing. Conservative investigators state that about half of these children, or six percent, suffer serious hearing loss. It has been estimated that one-third of all adults have some deafness in one or both ears.

Present methods of education attempt to consider the capacities and limitations of the individual. These are determined by considering the intellectual, emotional, environmental and physical status of the child. The modern school expects only what the child is capable of doing. Every effort is made to ascertain that capacity. Mental tests, performance tests, aptitude tests, personality tests, physical examinations and vision tests are all used in an attempt to determine the educational capacity of the child. Yet, in the usual battery of measurements, a hearing test is seldom mentioned. It is rather difficult to explain why perhaps the most important avenue of learning, the ear, is thus ignored. The child lives in such a predominantly verbal world that almost everything he learns - and everything he says - is dependent upon hearing for interpretation and meaning.

Dewey, Kilpatrick, Morrison and others have pointed out that the essence of education is bound

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up in the communication of ideas from one person to
another. Since the greater portion of our educative
methods emphasize the spoken word, the inability to
hear has a grave effect on the child's ability to
learn. 8

The hard-of-hearing person is one who has sustained
a hearing loss after speech has been learned. He might be
considered as occupying the gap between the normal hearing
person and the deaf individual. A deaf person is one who
for all practical purposes, has lost his entire sense of
hearing, and the loss has occurred before speech was learned.

It has been pointed out by Chappel that: No
physical calamity, other than the obviously fatal
diseases provokes more despair, hopelessness and
depression than defective hearing. The sense of
helplessness, due to loss of power to communicate
with others, causes acute mental suffering which
added to the resulting isolation, brings about de-
pression that the psychiatrist recognizes as dangerous.
Hofsmnmer, stated that the hard of hearing child
often develops an inferiority complex or becomes an
introvert or an aggressive bully.

Dahl states that, lack of hearing acuity forces
the acoustically handicapped child into situations
that have a definite effect on his personality. One
of these situations is that produced by grade repe-
tition. The educational system is set up so that
grade promotion means success, and failure to be
promoted means "stupidity." Furthermore, an un-
promoted child is removed from the majority of his
associates and gets the feeling of being left behind.
One failure might be explained by not getting work
completed, or by the unfairness of the teacher.
However, repeated failures cannot be so readily ex-
cused. They become more significant than just one
failure, and intensify the feeling of inadequacy

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2. Louise Anson Dahl, "Factors to be considered in
a Hearing Program." Public School Audiology. (Danville,
3. Ibid., p. 48.
and the reactions of despondency, resentment, unhappiness and disappointment felt by the hard of hearing child. 4

Hearing is essential to both the acquisition and the maintenance of correct speech. Speech is behavior learned basically by imitation. The learned speech responses are, in turn, guided and controlled by the speaker's own hearing. The deaf child does not speak because he cannot hear. Since he never hears the spoken word, he cannot reproduce it and so he must either remain mute or acquire speech through sight and kinesthetic training. Most deaf children have a small amount of residual hearing, and this is utilized in training by means of acoustic amplification. At best, the speech of these children never sounds normal, it is labored, arrhythmic and lacking in normal pitch and voice quality. Teaching the deaf child to speak requires special speech training which is carried on mainly in schools for the deaf.

The speech problem of the hard-of-hearing is different from that of the deaf child. First of all, he has acquired speech in the normal way—by imitation through hearing. What effect a loss of hearing has upon the speech which has been already acquired depends upon several factors such as: the type of hearing loss, severity of loss, and age at onset of the deficiency. Defects in articulation of the hard-of-hearing child are determined largely by the sound frequencies.

4. Ibid., p. 56.
the child does not hear. The child with a hearing loss usually has difficulty hearing and repeating these high frequency sounds: s, sh, z, dj, j, ch, k. If the loss is severe, there tends to be a noticeable change in voice quality and voice flexibility. A slight loss of hearing may produce no perceptible defect of either voice or articulation. In most cases articulation defects are common among the hard-of-hearing. Aretz reports that, "87.3 per cent of the hard-of-hearing children in his study had defective speech and that 25.9 per cent of the whole group (including those of normal hearing) had speech defects." Russell has shown that, "the incidence of speech defects is eight times as great among those with hearing losses as among normal hearing persons of the same age."

An average of two children in every school room is found at any given time to be deficient in hearing in greater or lesser degree. The hearing of all of these children is not permanently damaged. Experience shows that prompt medical attention will restore the hearing of some. Unfortunately the other cases are discovered too late for improvement of hearing. Their discovery is usually made by audiometer testing which is much more precise than the usual whisper or watch tick tests. Teachers are often not aware of the hearing defects of pupils. It is believed that if teachers were more familiar with health conditions and behaviorisms commonly associated with poor ear and hearing conditions, they would more readily select suspicious cases for observation by the health

5. Ibid., p. 71.
6. Ibid., p. 71.
This information has been presented with the idea of helping the teacher understand something of the nature of hearing loss. Now, short of having a well coordinated speech correction program in the school what can the teacher do to help the child who has a hearing loss? The monograph, "Helping the Hard of Hearing Child in the Schoolroom" is presented by way of answering this question.

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7. Warren H. Gardner, and Iaila Larsen, "A Hearing Health Program for the Teachers, (Department of Otolaryngology, University Hospital and the University Speech Clinic, Iowa City, Iowa.), P. 1.
Children with defective hearing are found occasionally in the schoolroom by periodic audiometer testing or through the alertness of a teacher or nurse. Their hearing varies in degree of severity. Some have minor; others have moderate or severe defects. The hearing loss may be temporary, permanent or progressive.

Readjustments are made in a few cases that are pronounced definitely handicapped. Their need of special attention is decided by a conference of principal, teacher, nurse and advisers in special education, who investigate the educational, personality and medical aspects of each case. Particular needs of each child govern the type of adjustment recommended.

A child with a moderate, permanent hearing deficiency may be seated closer to the teacher, if it is decided that his school achievement should be improved. The conferees may decide that the child needs lip reading, as well as special seating. Another child may have lost his hearing at such an early age that he needs special coaching in language, for example, or spelling and reading or other grade subjects. Special education by the State Board of Education is recommended in some instances.

Children who have been especially designated for special seating or attention achieve more easily if the teacher observes some simple precautions. The following suggestions have been tried and found helpful.

1. Allow the child to shift his seat in order best to follow the change in routine.

2. During seat recitations, let the hard of hearing child turn around and face the class so he can see the lips of the reciter. He may sit to the left or right so he can turn his head.

3. Whenever reports are given, or during home room and class meetings, have the children stand in front of the class so the hard of hearing child can see the lips of the speaker.

4. The hard of hearing child must see your lips. Therefore,
   a. Don't talk while writing on the blackboard.
   b. Don't stand with your back to the window while talking. Shadow and glare make it difficult to see your lips.
   c. Keep your hand and the books down from the face while speaking.
   d. Stand still while speaking and in a place where light falls on your face.
   e. When dictating spelling words or problems, choose one place to stand. If you must move, always come back to the same place before pronouncing the word.
   f. Conduct class recitations and discussions from the front of the room.
   g. Be sure you have his attention before you give assignments or announcements.
   h. Don't expect him to hear the assignments given without warning from a remote corner of the room, while he is busy doing something else.
   i. Particular care must be used in dictating spelling. Use the words in sentences to show which of two similar words is meant. For example, "Meet me after school" and "Give the dog some meat." Thirteen words look like meat when spoken, such as bean, bead and beet. Context of the sentence gives the child the clue to the right word. Have the hard of hearing child say the words to himself before a mirror as he studies his spelling lesson.
j. Ask the child if he understands after an extensive explanation of arithmetic (or algebra) problem.

K. Speak naturally. Don't exaggerate or over emphasize. Gestures are distracting.

l. If the hard of hearing child misunderstands, restate the question or statement in a different way, as the chances are you are using words with invisible movements. Be patient and never skip him. Be sure things do not get past him.

m. The hard of hearing child may need formal lip reading but those suggestions will help him over difficult spots.

n. Give him a chance to read ahead on a subject to be discussed in a project, such as on "whales". He will be more familiar with the vocabulary and can follow along better.

o. As he acquires skill in lip reading, insist that he catch the assignment promptly. This will cause him to keep alert.

5. If the child is deficient in a grade subject, a bright child may be assigned to help him or see that he gets the correct assignments.

6. If the young hard of hearing child is poor in reading, chances are he needs basic phonics to improve both reading and speech.

7. Parents should know the truth about a child's achievement. If satisfactory marks are based on the ability with the handicap, the parents should know that he is not necessarily equaling the achievement of a normal hearing child.

8. Teach the child to use the dictionary with skill; to learn the pronunciation system so he can pronounce now words.

9. Build up his vocabulary by assigning supplementary materials.

10. Encourage him to participate in musical activities. This will stimulate his residual hearing and add rhythm to his speech. Have him sit near a good singer Explain the purpose of the seating to the latter.

11. Never forget that the hard of hearing child gets fatigued sooner than other children because he not only has to use his eyes on all written and printed work but also to watch the lip movements of speakers.

12. Hearing of children varies, so don't think that inattention always is deliberate. Some children hear well in the fall but are hard of hearing throughout the winter.

13. Don't let the child get the habit of shaking his head or speaking indistinctly instead of answering in complete sentences.

14. Be natural with the hard of hearing child. At the same time he will appreciate it if he knows you are considerate of his handicap.

15. Encourage the child to accept his handicap and inspire him to make the most of it. Maintain his confidence in you so he will be quick to report any difficulty.

16. He needs special encouragement when he passes from elementary to junior high and later into senior high. The pace is swifter. There is much more discussion. Pupils recite to five or six instead of one teacher.

17. As the child approaches the age of sixteen years, be especially watchful. He may want to give up. Explain that he needs much more preparation to enjoy a life of success and happiness.
HELPING THE CHILD WHO NEEDS LIP READING

The medical and school officials suggest that your child learn to read lips, to help him better to understand people. His school and health record, his medical examination, his hearing tests, point to this need. The following information will be helpful in rapid development of the child's lip reading habit.

1. Lip reading helps your child because:
   a. The child understands more of what people say
   b. He is more natural in his relations with others
   c. He is no longer embarrassed by not understanding his playmates.
   d. He acquires independence and self-respect
   e. He more easily follows class recitations and lectures, thereby improving his grades.

2. Lip reading lessons may be furnished by your own school system, by a neighboring city, in a summer school, or by a private teacher. If your child is 16, consult the State Board of Rehabilitation.

3. You can help your child much in developing lip reading if your family observes the following instructions.
   a. Don't give a command to him before you have his attention.
   b. If the child doesn't understand the first time, instead of raising your voice restate the sentence, using different words. For example, "Come home early" for "Don't stay out late." Or "Be home by nine o'clock." Be patient, for he will get it one way or another.
   c. Be particularly patient about explaining things to your child, answering his many questions, as undoubtedly there are questions arising in his mind which he feels freer to ask you than his teacher. He may miss many things which a normal-hearing child learns by hearing.
   d. At the table and in other family groups, allow only one person to talk at a time so that the child can follow the conversation. Seat him so that he doesn't have to face the light.
   e. When talking to him, be sure that the light is on your face so that he can see your lips as you talk. All members of the family should do this.
   f. Always use voice but don't exaggerate lip movements or gesture with your hands. It is much harder to read lips of people who have hats on or of men who wear mustaches. Lip stick helps to emphasize the mouth contour and makes lip movements more visible.
   g. Don't let him become discouraged but inspire him to keep trying to read lips. It improves with practice and gives him greater confidence in himself at home, with friends, or at school.
   h. Encourage the child to read a great deal in all fields. This develops a broad background and vocabulary and helps him to understand conversation more easily.

Prepared by Warren H. Gardner and Laila Larson
Hearing Form R - Page 1
A HEARING HEALTH PROGRAM FOR THE TEACHER

An average of two children in every school room is found at any given time to be deficient in hearing in greater or lesser degree. The hearing of all of these children is not permanently damaged. Experience shows that prompt medical attention will restore the hearing of some. Unfortunately the other cases are discovered too late for improvement of hearing. Their discovery is usually made by audiometer testing which is much more precise than the usual whisper or watch tick tests. Teachers are often not aware of the hearing defects of pupils. It is believed that if teachers were more familiar with health conditions and behaviors commonly associated with poor ear and hearing conditions, they would more readily select suspicious cases for observation by the health department.

The teacher may use the following clues to detect departures from good hearing health:

1. In-attention, frequent failure to respond to questions; slow to "catch on" to explanations or announcements.
2. Frequent requests to have words, dictation or assignments repeated.
3. Inability to hear conversaion in a group, as shown by frowning, straining forward when child is addressed or paying no attention.
4. Unexplained fatigue or easily fatigued.
5. Failure to participate in class or project discussions.
6. Peculiar position of the head, such as turning one ear towards the speaker.
7. Looking up with surprise and not knowing who spoke or where the sound came from.
8. Emotional instability, unexplained irritability, timidity, marked introversion, supersensitivity, viciousness, a-social or withdrawal tendencies, etc.
9. Ear aches, pain, tenderness, itching or heat in or about the ear.
10. Discharge from the ear.
11. Ear noises, such as ringing or buzzing, lasting over a long period, or especially when everything is quiet.
12. Dull, heavy or blocked feelings in the ear; "ear stopped up."
13. Frequent colds and sniffles.
14. Voice and speech defects, such as omission of consonants like, s, sh, ch; substitutions of consonants (k for t, s for z, etc.); omission of final consonants. Too loud or too soft voice, too high or too low pitch.
15. Any sudden change in attitude or response, especially after a sickness.

16. Caution: When a child returns from an infectious sickness, like measles or scarlet fever, ask him if he had an earache or running ear. If he did, but received no medical attention, report this fact to the nurse.

17. The teacher can prevent development of ear troubles by helping to solve the problems of children who are:
   a. Undernourished (watch the lunch basket)
   b. Not warmly dressed
   c. Lacking in sleep or rest
   d. Beginning to have a cold
   e. Having a "drag out" cold

18. The teacher can cooperate with parents, health department and others by:
   a. Notifying parents and health department when she suspects something is wrong with a child's hearing or hearing health.
   b. Asking for a hearing test of the child at once rather than waiting for the periodical audometer test.
   c. Urging parents to obtain prompt medical attention to locate the cause of the ear trouble.
   d. Cautioning the child who has ear troubles not to wet his hair too much to comb it, and always to wear a hat. Swimming should be limited to the breast stroke with head kept above water. All diving should be prohibited.
   e. Re seating the child so he can follow instructions and listen to the best advantage, when the physician's recommendation and the child's achievement point to this need.

19. IT IS WISE to classify or condemn a child as dull or inattentive without finding the TRUE CAUSE. It may be a physical defect, such as a hearing loss.

20. IT IS WISE always to investigate. There will be less misunderstanding and earlier attention will be given to the child's health and educational difficulties.

Prepared by Margaret M. Garvin and Laila Larsen

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CHAPTER IV

SUMMARY OF STUDY

The purpose of this study was to determine the number of children in the public schools of Montana who were classified as speech defectives by teachers or administrators, and the extent to which these children were being helped to overcome their speech problems. Once this information was gained it then became apparent that a further part of this thesis should include the kind of information about speech problems which would be of value to the classroom teacher in helping her deal more effectively with the speech defective student.

II THE FINDINGS OF THE STUDY

For the information needed in the first part of this study a questionnaire was mailed to 603 public schools in Montana. This included all first, second, and third class districts as well as to all two room schools listed in the Montana Educational Directory of 1950-1951. The 603 schools contacted 247 schools replied. These schools had a total enrollment of 40,586.

If it had been possible for one qualified speech correctionist to complete a survey in each individual school, the number of speech defective students found by this one
examiner would have been highly valid. Since it was impossible to have a qualified speech correctionist complete a survey in each individual school the questionnaire technique was used. Since the number of speech defective students found through this questionnaire survey method roughly agrees with the number of speech defective students reported in other surveys it was thought that the results presented here were reliable.

When it was found there were great numbers of speech defective students in Montana public schools who were receiving little or no therapeutic help it then became a problem to assemble the kind of information that would be meaningful to the teacher who might find time to work with some of these speech defective students.

The information presented in Chapter III was selected from the writings of leading speech correctionists. Much of this material at present is being used in the speech clinic at Montana State University, Missoula, Montana.

The type of questionnaire used appeared to be valid statistically, since a letter and definitions of the speech problems in question were included. The questionnaire seemed to give information in an accurate and usable form. After Mr. Herbert M. Carson, Director of University Speech Clinic, held a clinic in several different schools the number of speech defectives found by him within those schools correlated
with the numbers listed on the returned questionnaires from these same schools.

According to the way teachers, principals and superintendents classify speech defects, there is an indication that an extremely high percentage of speech defective students are being classified as stutterers. This tends to indicate that a teacher, principal or superintendent will list a student as a stutterer when the exact nature of the speech defect is not known.

From the returns of the questionnaire used in this thesis, it was found that an extremely high percentage of grade repeaters were also speech defectives.

The questionnaire points out that 28 per cent of the schools in Montana provide for no hearing test. There is no systematic program of administering hearing tests in these schools that give some kind of hearing test.

Butte and Missoula are the only two cities in the state that offer organized speech correction services for the public school speech defective child.

According to the questionnaire used in this thesis, there is an apparent lack of information on the part of school teachers, principals and superintendents concerning speech defects. For instance, one county reports the percentage of speech defectives in the school population as .38 while another county reports that 19. per cent of the
school population are speech defectives.

III RECOMMENDATIONS

After results of the questionnaire were returned and tabulated, the following recommendations seem to be indicated.

The results from the questionnaires returned from the majority of the schools show that they are desirous of setting up a speech correction program on a county basis. Some schools felt there were sufficient numbers of speech defective children in their school to warrant a program on a city basis. It is recommended that a speech correction program be set up on either a county or city basis depending upon the population of a given area.

It is recommended that teachers in all public schools in the State of Montana have a minimal amount of training in dealing with a child who has a speech problem. A plan similar to the one recommended to the Oregon Board of Education by a special committee working out a solution to help the speech defective child would be advisable.

It was recommended by this special committee that the most satisfactory approach to the problem of the speech defective classroom child is that of giving every teacher during her college training a knowledge of certain
speech fundamentals and preparation in understanding and correcting at least the common speech problems she is likely to encounter. This could be done in Montana. It is recommended that all teachers who are now employed should be required by the Board of Higher Education to take such courses. Such courses might include: Voice and Diction, Introduction to Speech Correction, Phonetics, and Clinic Practice in dealing with speech defective children.

The special committee working under the Board of Education in Oregon recommended the following:

1. **Speech proficiency Test.** ... that all elementary teachers be required to demonstrate their adequacy as to voice and speech by passing a speech proficiency test to be given upon the student's entrance into a teacher-training institution, or department of teacher training. No teacher is to be granted a certificate until such proficiency is successfully demonstrated. ... It is recommended that all teacher-training institutions offer appropriate courses as well as the opportunity for individual clinical correction so that all prospective teachers who desire may have an opportunity to improve their voice and speech and that those who fall short of the speech proficiency requirements may have an opportunity to attain sufficient adequacy.

2. **Speech Courses for all Elementary Teachers.** ... It is urged that as soon as possible this course (Better Speech for the Classroom Child) be required of all teachers planning to teach in the elementary grades and that it be adopted in the near future as one of the requirements for the certification of such teachers. The course is especially designed to help the regular classroom teacher in a grade school situation improve the speech of the pupils in her room. It is essentially a developmental and not a corrective course and includes: (1) steps in learning to talk, (2) criteria for good voice and speech,
(3) introductory material on how the sounds are made,
(4) group games, activities, and other motivating and
learning devices, (5) survey of selected books and
materials, (6) demonstrations of speech improvement
lessons, (7) correlating speech improvement with
other subjects, and (8) elementary survey of common
speech problems as to prevention and correction.

It is believed that interested teachers equipped
with the elementary information provided in this
course could render important service, largely with-
in the limits of their regular classroom work, in
bringing about improvement in the speech of all
pupils, in preventing the occurrence of speech de-
fects from becoming more severe through emotional
involvements or prolonged habituation, and in the
correction of minor defects.

... Among the courses recommended and outlined...
... is a beginning course called Principles of Speech
Correction to be established as the situation warrants
to serve as: (1) an elective follow-up course to
Better Speech for the Classroom Child, (2) a required
first course for prospective special teachers in the
field, (3) a recommended elective for those preparing
to teach in secondary schools an elective for general
speech majors and others wishing a survey course in
speech correction.

It is recommended that this course be made a-
vailable as soon as possible on an elective basis in
all institutions training public school teachers,
and that all teachers who are considering teaching in
the kindergarten, primary, and intermediate grades
be urged to choose it as one of their electives follow-
ing the basic speech improvement course.

With the basic principles and techniques provided
in this course teachers should be able to render im-
portant service, still largely within the limits of
their regular classroom work, in preventing and cor-
recting the typical and frequent speech defects found
among school children; chiefly, functional articulatory
defects and early stuttering.

The primary purpose of the teacher institute is
to give the teacher an acquaintance with the common
speech problems which she might encounter in her
room, some preventive information, and a demonstration
of a few simple testing and corrective methods. This
information, is given to help her identify, and 
select for referral to a scheduled speech clinic, 
children in her room with defective speech, and to 
carry out the recommendations for preventive measures 
or simple corrective work made by specialists from 
the State Department of Education at the scheduled 
clinics. A traveling clinic, operating out of the 
State Department, visits the county approximately 
one month after the institute is held in that county, 
diagnoses the speech defects of the children re-
ferred, confers with parents and teachers, and makes 
recommendations for the correction of the child's 
difficulty.

It is recommended that a uniform hearing testing 
program be carried out in all Montana Public Schools. This 
program would require the testing of every child in all 
public schools at least once every three years with some 
type of audimetric test. Most authorities agree that the 
audimetric test is the only valid test for hearing loss. 
Ronnie points out that watch tick and whisper voice hearing 
tests are of little value unless used by exceptionally skill-
ful examiners.

Teachers and physicians who use the older methods 
(whisper and watch tick tests) still miss all but 12 
per cent of the cases. Children still do not complain 
and exanthemata still take their toll. But there are 
several makes and types of audimeters now on the 
market by which accurate and meaningful tests can be 
given to all ages and grades of children. Standard 
results are available to all who care to use them. 
Ignorance of the hard-of-hearing child's existence 
can no longer be considered valid excuse for neglecting to provide them with adequate education.

Periodic audiometer tests should be routine pro-
cedure in every school. These tests serve two

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1. T. Lessers, Oregon Speech Improvement and Rehabili-
tation Program. Quarterly Journal Speech, 33:61-8, February, 
1947.
purposes, both of which pay rich dividends in social welfare. First, hearing tests prevent and ameliorate deafness. Through early detection of defect, the case can be brought to medical attention before the delicate mechanism of the ear has been irreparably damaged. Second, hearing tests identify hard-of-hearing children and give the school authorities a picture of both quality and quantity of hearing acuity which they may use as a guide in providing adequate compensatory education.

Since it is the duty of the public health nurse in many schools to test the hearing of school children and in order to develop consistency of hearing test procedures, it is recommended that in-service training institutes be held in different parts of the state for public health nurses. Public health nurses should be instructed in standard testing techniques, using the pure-tone as well as the group audiometer. Instruction should also be given in checking equipment, and in the proper care of the audiometer.

In the parts of Montana where electric current is not available, or where the school population is too large to permit individual testing, the phonograph or group audiometer could be used for screening. In all such cases where a child fails such a group test a retest should be given.

Since the service of an otologist is not available in many communities within the state it is recommended that

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Montana State Board of Education hire a qualified otologist who would visit the various schools and test those students found by the nurse to have a hearing loss of 20 or more decibels in any two frequencies or a loss of 30 decibels or more in any one frequency.
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Johnson, Wendell, An Open Letter to the Mother of a Stuttering Child. Speech Pathology and Director of the Speech Clinic, University of Iowa.
From: The Speech Clinic, Montana State University

To:

The speech clinic of Montana State University is interested in establishing a statewide service for the correction and prevention of speech disorders, and a speech correction program in each school district or city. Both the service and the program will be of slight consequence without the support of administrators and teachers who know the speech needs of their students.

In order to obtain some idea of the nature and extent of the needs for speech correction in the schools, the following questionnaire has been prepared. The results of the questionnaire will be compiled to show the feasibility of establishing a speech correction program in the school or county.

When material is in from all over the state and compiled, we will send you a copy.

For your help in determining the different speech defects, I have enclosed a short definition of each defect on questionnaire.

Please answer the questionnaire attached with as much care and accuracy as possible.

Yours very truly,

E. F. Carson
Director of Speech Clinic
University of Montana
Ph.D. Wendell Johnson described stuttering as an anticipatory, apprehensive, hypertonic avoidance reaction. "In other words, stuttering is what a speaker does when (1) he expects stuttering to occur, (2) dreads it, and (3) becomes tense in anticipation of it and in (4) trying to avoid it. That he does in trying to avoid it amounts chiefly to a complete or partial stopping of speech. All this is to say that stuttering consists, as a matter of curious but plain fact, in the stutterer's attempt to keep from stuttering to prevent the occurrence of something he expects, dreads, and would rather avoid."

CLEFT PALATE

With cleft palate, the structures which normally form the roof of the mouth have failed to join properly. As a result, air passes freely between the oral and nasal chambers. This means the speech tends to be nasalized. It means also that difficulty is experienced in building up breath pressure, for example, in the production of the stop-voiced sounds (p, b, t, d, k, and g). The effort to produce these sounds may result, therefore, in what may be called a "nasal snort."

ARTICULATION

The youngster who has difficulty in articulation does not form and produce all of the speech sounds in the usually accepted manner. This form of speaking is commonly termed "Baby talk." Usually, these errors may be conveniently grouped under one of the following three classifications:

1. Substitutions - Examples: "I threw a rock at the rabbit," "I threw a rock at the rabbit." Substituting the s for the r. "Leave me alone, Billy!" for "Leave me alone, Billy", Substituting the w for the l. "Dacky can't cat me!" for "Jacky can't catch me!" Substituting the d for the voiced consonant j. "Run down do woold." for "Run down the road." Substituting w for r.

2. Omissions - Examples: 'Little sounds like lil. Kitten sounds like kin. Saddle may resemble sael. Wriss for wrists, ma for make, ta for take, and booss for boosts.

3. Distortions - Possibly the most commonly distorted sound is the consonant s. Example: tea for sea, teal for seal, told for sold, top for sop, too for Sue, tame for same.

CEREBRAL PALSY

The speech of children with this disorder is labored, slow and jerky, and the voice tends to be monotonous. Cerebral palsy is characterized by lack of co-ordinations in the muscles used for speech.
RETARDED SPEECH DEVELOPMENT

Children who have never learned to talk or who are able to talk only a very little are usually described as having "delayed speech" or "retarded speech development."

There are various degrees of delayed speech development. One child so classified may have no speech at all; he usually utters a few grunts or cries, but may not even use these forms of communication. He may respond fairly well to the speech of others, or he may give very little indication of comprehension. Another child with speech retardation may have a vocabulary of five or ten words. A third such child may have fifty to a hundred words in his vocabulary. He may use these words frequently and appropriately, or seldom. Or he may use one word such as "this" (or more likely dis) to apply to almost every object he sees.

DEFECTS ASSOCIATED WITH A HEARING LOSS

Speech defects associated with impaired hearing are revealed chiefly in certain distortions or articulation and voice. The hard-of-hearing child cannot hear the speech of others well enough to imitate accurately the different sounds. Moreover, such a child cannot always hear his own voice sufficiently well to know that he is making particular errors or that he is not controlling his vocal inflections normally. The degree to which speed is affected depends generally upon the degree to which hearing is impaired. The various types of hearing loss, and the practical significance of different degrees of loss, so far as speech is concerned.

VOICE DEFECTS

Defects of voice are mainly classified in terms of the primary attributes of voice. These are pitch, loudness, and quality. Pitch can be too high, too low, or monotonous. The voice may be too loud, too weak, or monotonous with respect to loudness. The chief quality defects are nasality, hoarseness, harshness, and breathiness. Many of the voice difficulties in children are associated with the common cold, laryngitis, or enlarged adenoids.
I. Speech Problems in your School.

1. Total number of speech-defective children in your school or district?
   a. Number of cases of stuttering (characterized by blocking and hesitation)?
   b. Number of cases of elit palate or "hard lip"?
   c. Number of cases of unclear articulation (muddled, unclear speech)?
   d. Number of cases of cerebral palsy?
   e. Number of cases of retarded speech development?
   f. Number of cases of speech defects associated with a hearing loss?
   g. Number of cases of voice defects?

2. How many boys have speech defects? _______. How many girls? _______.

3. How many of the speech-defective children have been grade repeaters? _______.

4. Does the evidence support the assumption that speech handicapped children are lower in intelligence than normal children? _______.

II. Present Speech Correction Program.

1. Is help given to those with speech problems during regular class hours?_____.

2. By all teachers? _______ or by a trained speech correctionist? _______(See sheet attached). During what courses _______, _______.

3. In private lessons in a special room? _______.

4. How often is a hearing test given? _______.

5. Is this test given to all students? _______.

6. If not, which students? _______.

7. What kind of a hearing test is given? (Please underline). (Audimeter, watch tick, or whisper test). By whom? _______.

8. How many of the hard-of-hearing children have been grade repeaters? _______.

9. Is there a teacher in the school that can teach lip reading to the hard-of-hearing children? _______.

10. List below any other things you do to meet speech correction program?

III. Possible Future Developments.

1. Could the services of a speech correctionist be utilized in the city? _______.

2. or county? _______.

3. If so, what prevents this from being done? _______.

4. Any attempt being made to acquaint the parents with what the school is doing in the field of speech correction? _______.

5. Are talks given before: P.T.A. meetings? _______.

6. Service Clubs? _______.

7. Fraternal organizations? _______.

8. Other groups? (Please list) _______.

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TO BE FILLED OUT BY THE SPEECH CORRECTIONIST

Your Name

How much training (No. of years) have you had?

From what school did you graduate?

What courses have you taken in Speech Correction?

How many hours a day of clinical work do you do in private or group lessons? Total

Do you belong to the National Speech and Hearing Association? If not, would you be interested in joining?

Remarks: