Speech defects as a school problem

Catherine Nutterville

The University of Montana
SPEECH DEFECTS.

AS A SCHOOL PROBLEM.

BY

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Chairman of Board of Examiners.

Chairman of Committee on Graduate Study
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FOREWORD

The writer wishes to express her thanks to those who have so splendidly co-operated with her in this study. These include the Butte teachers who accepted, tried out, and criticized the methods of correction used here, Mr. Grant Ketcham, principal of the Missoula County High School, Miss Harris, teacher of speech in the Missoula County High School, Superintendent J.G. Hagsdale of the Butte Schools, Mr. Scott Fries of the Butte High School. She is particularly grateful to the University and high school students who participated in the speech study in Part II. To Professor F. C. Smith of the Department of Psychology of the University she wished to express her most sincere gratitude for his kindly interest and painstaking guidance in the study in Part II. Also she wishes to thank Dean Freeman Daughters of the School of Education for his help throughout her work at the University of Montana.
PART I

Chapter 1. Introduction
Chapter 2. Literature
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 and then to the doctor. No one agency has assumed responsibility for the development of correct speech in the child, nor have they all co-operated in the development of this skill. The home may have noted a child's defective speech and waited until he started to school to have it corrected. The school, receiving this little one, already handicapped for his new responsibility of getting an education, gave him what he could get in his first semester and early consigned him to the large group of first grade repeaters, with the notation after his name that it was impossible to promote him because of his defective speech. Occasionally his condition was discussed with the parent who believed that he was tongue-tied and would outgrow his difficulty. The writer wishes to emphasize the fallacy of this diagnosis. In several years experience with speech defective children she has never seen one who was tongue-tied, and has only had the history on one child who was tongue-tied at birth. Very few children are born with this condition and modern physicians never permit a newborn child to leave their hands until they have made an examination for this as well as for many
other defects. If an infant is tongue-tied at birth, the de-
flect is corrected surgically very early in the life of the child.

There is some basis for believing that a child will "out-grow" a speech defect. His chief business during his first few years of life is learning how to express himself. By the trial and discovery method he does learn to talk. The writer learned to type by this method. She was not taught. As a result, she is only a fair typist and when she wishes to write as important a document as a thesis for a Master's degree, she resorts to her fountain pen and hires a typist to transcribe her notes. Children who learn to speak without regard to the niceties of speech fail at the very beginning to develop a tool that will be of value to them not only in self-expression but in the appreciation of liter-
ature, dramatics, debate, declamation, music and even art. The speech that results from the "out-growing" of a defect, particularly a lisp, is never the clear-cut, spontaneous, effective speech of one who is sure not only of what he has to say but also how he is to say it.

Hence defective speech becomes the problem first of the home, then of the school, and, is need be, of the physician. No child should be burdened with any avoidable handicap. Believing this, the writer for many years has carried on a program of speech correction, first with the
speech defective children in the Garfield School in Butte, and during the past four years with speech defectives from the various schools including the High School in Butte. With a basis of the psychology of speech and the physiology of the speech apparatus, she worked with dramatics, declamation, and public speaking, believing that the skills which are necessary for success in these arts are the same as are needed for the development of correct speech among children handicapped with speech defects.

The following pages are the result of both intensive and extensive work in speech. They are not any attempt to present a "new" system. They are written to help teachers to develop in all children an ability to talk with a normal degree of fluency and clearness. Much of the literature on the correction of speech defects is so technical that the schoolroom teacher is unable to read it understandably. Another type is so evangelical that one is almost convinced that he is being "converted". Few teachers can give time and thought to either type. Therefore the material contained here is submitted with the hope of the writer that it is so definite and concise that it may be of value to the teachers and that through them it may reach some few inarticulate children and help them to a better means of self-expression.
The writer has avoided the use of technical terminology for two reasons. First, because the thesis is intended to help teachers who can not be expected to be familiar with such terms, and secondly, because there is a lack of agreement among writers as to what various terms mean. Dr. Scripture simplifies the terminology by dividing speech defects into two groups or types, stuttering and lisping. He defines as stuttering all those defects of the halting, repetitive type, even the complete inhibition when the individual fails to make a sound. Lisping is any distortion of speech such as substitution of sounds, cluttering, faulty articulation, in fact, any phonetic disturbance. This is the terminology that has been used throughout this discussion, not because the writer fails to recognize the necessity for a finer differentiation between the various degrees of defect and their bases, but because such fine distinctions are not necessary for the improvement of speech among large numbers of children and the prevention of many speech disorders by checking them in their incipiency.

This thesis has been developed in two distinct parts: first, the relation of speech to personality, an experiment carried on by the writer during the past three years with I. Scripture, E.W., "Stuttering and Lisping," (1914) The MacMillan Company, New York, p. 1 and p. 111.
University and high school students in Missoula and with a group of speech defectives in the Butte High School; and second, methods of prevention and correction. The second part also contains a number of cases of speech defect with whom it has been the writer's privilege to work.
THE LITERATURE OF SPEECH CORRECTION

The writer has attempted to read everything available in the literature of speech correction. Some comments on the most helpful material are in place here. Also some adverse criticism will be offered.

For the classroom teacher who wishes to carry on a speech improvement program with all her pupils and to help in the correction of defects is no specialist is provided by the school system, the writer recommends most highly "Speech Training for Children" by Margaret and Smiley Blanton. This is a practical volume written in an understandable style with no attempts to be unduly technical. In this same category is the volume "Speech Pathology with Methods of Correction" by Sara M. Stinchfield. However, Dr. Stinchfield's volumes tend to be more technical and hence a bit more difficult to read than the one mentioned above by the Blantons. These writers often appear in the periodic literature on speech correction and their contributions are always good.

Dr. E. W. Scripture's book "Stuttering and Lisping"

is a valuable text since it not only discusses the psychology of speech, but also gives a splendid discussion of the physiology of the speech apparatus. In addition to this Dr. Scripture simplifies the terminology of speech correction. Dr. Stinchfield discusses this phase of the problem also and there is a fair discussion of the terminology of speech correction in "Special Education, the Handicapped and the Gifted." It seems unnecessary to develop a long and difficult terminology for this educational problem. It is already greatly neglected, and technical language in the literature of the problem will discourage teachers from attempting to get from this literature the help that it offers. Another criticism of the same phase of the problem is that it is rather ridiculous for a teacher of speech to be moved by an urge to write his contribution to the literature and in this contribution to apply to some word a meaning that is entirely his own, being used by no other contributor to the literature. For example, Dr. Green and Miss Wells apply to the term "stammering" the meaning that most authors apply to the term lisping. Within the past few years, since the White House Conference for Child Welfare in 1931, a committee has been working on the terminology to be used in the discussion of speech defects 5. . . . Special Education, the Handicapped and the Gifted (1931) White House Conference Publication, p. 351, The Century Co., New York.

and their correction. The work of such a committee will be of great value.

Periodic literature is valuable to both teachers and parents since it is short, concise, and deals intensively with some specific phase of the problem. Such magazines as *Hygeia* and *Parents* often have splendid articles on speech correction.

The volume, "Speech Correction", by Borden and Busse gives a splendid discussion of the problem of foreign accent. For teachers in communities where many foreign children are in the school the writer recommends this volume.

The following adverse criticism of some of the literature of speech correction is the result of the writer's having read many pages of what purported to be documents on causes and cures of speech defect. These books belong to the type referred to earlier as evangelical. They paint the speech defective as an individual so afflicted that one is reminded of the leper in the Bible and scarcely recognizes him as a very interesting personality, eager for help and usually capable of receiving it. This criticism is aimed chiefly at "The Cause and Cure of Speech Disorders" by Dr. Greene and Miss Wells. The authors call the

stutterer "the slow-moving, slow-thinking gype." It is the writer's opinion based upon her contact with many stutterers that they are decidedly of the fast-moving, fast thinking type, if it is safe to generalize even to this extent. Their thoughts outrun their ability to express them and this lack of co-ordination between thought and expression becomes a stutter. When one remembers the traditional stutterers, Demosthenes and Caesar, and recalls the brilliance of Charles Lamb, and when one hears on the platform of pulpit a man who puts across a splendid message in spite of the stutter which is evident in his delivery, it is difficult to believe that stutterers should be condemned to any such generalization as this "slow-moving, slow-thinking type."

The writer also wishes to question this statement: "All efforts to avoid the conflict bring about more of the conflict and speech is interfered with, speech failures become pronounced, fear becomes a dominant factor, and hesitating stuttering speech becomes a well established. In families where there is more than one language spoken at home, impressionistic emotional children during their critical speech period are very prone to demonstrate a language conflict which interferes with the formation of normal speech habits and often results in abnormal speech."  

The author's given no figures to prove the assertion that homes in which more than one language is spoken produce a greater number of children with abnormal speech than others. The writer believes that these authors here

9. Greene, Jas. Sonnet & Wells, op. cit., p. 66
mean stuttering as necessarily the defect of foreign accent is to be expected from the children of these homes. There is a large foreign population in Butte where the writer works. In several of the schools the children of foreign parents form the majority of the school population, yet it has not been her experience that these children develop stuttering to a greater degree than the children of any other school in the district. This is the type of generalization to which the writer refers in one of the case histories.

A dangerous policy indulged in by the people who conduct schools for the correction of defects is sending out advertising literature for their schools. This is necessarily a move to attract people to these schools and in their zeal for business they picture the stutterer as inarticulate, shunned, tragic. This type of material they send directly to the stutterer who reads it and loses courage. In one case, the writer had a boy who had not stuttered for months, relapsed after receiving one of these letters so that all the efforts at correction had to be begun over again and it was only after hard struggle that he began to improve again. The writer agrees with these authors that the life of the stutterer is tragic, but nothing can be worse for him than to emphasize the tragedy to him. For the most part they are able at least to participate on the fringe
of society. Every effort should be made to draw them into the social family. Anything that calls their attention to their difference from other people is of no value and may be harmful.

For the writer a most helpful source of the literature of speech defect and correction has been the Child Development Abstracts. The volumes of the later years present better material than those of earlier years. Also better abstracts are being made so that the material is usable not only because of its content but also because of its brevity. Many of these abstracts contain data concerning studies of left-handedness. The weight of the authority of these studies is decidedly in favor of non-interference with handedness. The following quotation is typical,

"In a study of 13,560 pupils, 4 per cent were found to be left-handed and 4 per cent had changed from left hands to right for writing. Six per cent of the right handed, 12 per cent of the left-handed, and 15.8 percent of the left-to-right transfers were grade repeaters. It is pointed out that teachers should be patient with left-handed pupils since the latter must translate right-handed instruction to their own methods, appear to be slower to comprehend directions, and are handicapped by classroom seating arrangements. The author points out that while no one is exclusively one-handed, preferred handedness should not be changed." 11


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SUMMARY

The literature on speech correction is neither extensive nor in agreement. There is disagreement as to terminology, background for defects, and methods of correction. Writers are often so verbose that whatever contribution they may have is lost in their failure to organize their work in a simple direct style. This is true of the volume already adversely criticized, "The Causes and Cure of Speech Disorders," by Dr. Greene and Miss Wells. The writer believes that these workers do a good job of correcting many speech disorders, but in the careful perusal of a large volume she failed to discover what they had to offer to other workers in the field.

PART II

A Study of the Relation of Speech to Dominance-Submission
PART II

A STUDY OF THE RELATION BETWEEN SPEECH AND PERSONALITY

This study was begun at the University of Montana Summer School in June, 1932. It was an effort to measure the relation between speech and personality. During the first summer school (1932) the effort was placed almost entirely upon the development of the technique for the study, particularly to devising a satisfactory objective measure of speech. Obviously, nothing less than some standardized measure could be used. It was also necessary that it should be sufficiently difficult to challenge the interest of University students yet it could not be too difficult for high school students in whom the writer's chief interest rested.

An Oral reading test is not a speech test, yet in measuring oral reading one also measures most of the skills that make up one's speech skills, - fluency, enunciation, articulation, pronunciation, and voice. 13 Gray's Oral Reading Test fulfills these requirements satisfactorily and was adopted. This test consists of five forms, each a descriptive reading of 150 words. In the preliminary experimentation only one form was used. This was not satis-

factory because many adults could not yet overcome the anxiety that accompanies a test situation when the first reading was ended. It was therefore decided to use all five forms, timing each reading to the nearest second and recording every error. The errors fell into the following types: mispronunciation, hesitation, repetition, correction, and omission for those of major importance; and misplaced accent, slurring, substitution, and insertion for those of minor importance. Thus was adapted from Gray's Oral Reading Test an objective measurement of speech as far as it can be measured by reading.

The Bernreuter Personality Inventory was used, the B4-D key measuring dominance and submission being the one used throughout this study. The author of this scale describes it as follows, "B4-D, a measure of dominance-submission. Persons scoring high on this scale tend to dominate others in face-to-face situations. Those scoring low tend to be submissive." And in a foot-note he adds: "The items in this test which measure Dominance-Submission are based upon the Ascendance-Submission Reaction Study by Gordon W. and Floyd H. Allport and are used by permission of and special arrangement with the publishers, Houghton Mifflin Company."

The writer's interest was chiefly in the personality traits of stutterers. Experience with many stutterers in the Butte schools led her to believe that they, as a group, had certain personality traits of the negativistic type which should show up in a study of this type. Whether the undesirable personality trait was the cause or the result of their inability to express themselves was beside the point. If there were evidence to show that they as a group were as different in personality from the normal as they were in speech, then there would be reason to attack the problem of their rehabilitation not only from the angle of speech correction, but also from that of personality improvement. With this as a basis the study was carried through during the 1932 summer session with 37 students. This was a highly selected group being not only University students, but also because it was during the summer session, many teachers were in the group.

Late in the spring of 1933 the writer was able to administer the tests to the Oral English classes, 32 juniors and seniors, in the Missoula County High School, and during the 1933 Summer School 52 students in the department of psychology at the University took the test. This made a total of 121 cases.

When all these students were given both tests and the personality tests had been scored, the following technique
for scoring the speech tests was devised. A complete check of the whole number of errors was made and the errors were evaluated according to the frequency of their occurrence. There were 121 cases and a possibility of 750 errors in each test. On a percentage basis the value of each error was found. These percentages were then weighed so that if one were to make an error of each type, the total would be one.

Upon the basis of the total number of errors made by the whole group (121) cases, the following score values were given to the various types of errors:

<table>
<thead>
<tr>
<th>Error Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mispronunciation</td>
<td>.32</td>
</tr>
<tr>
<td>Repetition</td>
<td>.21</td>
</tr>
<tr>
<td>Correction</td>
<td>.20</td>
</tr>
<tr>
<td>Hesitation</td>
<td>.17</td>
</tr>
<tr>
<td>Minor Errors</td>
<td>.10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1.00</strong></td>
</tr>
</tbody>
</table>

(Note: Substitutions, accent, omission, and insertion were included under the head of minor errors.)

To give positive scores, that is, to make it possible to give the best reader the highest score, the speech records were scored on the above basis and 750, the total number of words in the test and hence the number of possible errors, was divided by the total value of the errors made by any individual to obtain his score. To avoid the use of such extremely large numbers, the result was again divided by 100.
The scores of the entire group ranged from .11 to 75. Four individuals received 75, the highest possible score, showing that the test did not measure their ability to speak. With a more difficult test it might have been possible to get a truer measure of their ability. However, a more difficult measure would also have ruled out those speech defectives at the lower end of the scale whose scores were .34 and .11.

During the time that this part of the study was in progress a student called attention to the fact that in answering the questions on the Bernreuter Personality Inventory it was often impossible for him to determine whether to answer "yes" or "no", and, unless he were absolutely sure, he always marked the question mark. He had taken the test twice. Upon investigation it was found that his first test was marked the majority of cases with the question mark and that even in the later test this scrupulous youth had used a very large number of question marks. An investigation of the test was made to determine what would be the effect if all questions were answered "yes", or all "no", or all question mark. The following would be the result for the B4-D key, the one in which we were interested in this study:

The author of the Personality Inventory reports coefficients of reliability for all tests on the inventory of from .85 to .88 using the split-half method and applying the Spearman-Brown formula, and coefficients of validity of from .67 to 1.00 after correlating the tests with four other previously validated tests, the Thurstone Neurotic Inventory, The Bernreuter Self-Sufficiency Test, the Laird C2 Introversion Test, and the Allport Ascendance-Submission Reaction Study. Yet there seems to be reason to question why an individual answering all questions on the scale "yes" should not fall on the opposite extreme of a percentile ranking from one who answered them all "no". They do fall at opposite ends when the Bl-N and the B3-I keys are used as shown in the following tabulations:

<table>
<thead>
<tr>
<th>B4-D Raw Score</th>
<th>Percentile Rank</th>
<th>College Male</th>
<th>College Female</th>
<th>Adult Male</th>
<th>Adult Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>All &quot;yes&quot;</td>
<td>13</td>
<td>19</td>
<td>11</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>All &quot;no&quot;</td>
<td>58</td>
<td>65</td>
<td>65</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>All &quot;?&quot;</td>
<td>31</td>
<td>39</td>
<td>27</td>
<td>47</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bl-N Raw Score</th>
<th>Percentile Rank</th>
<th>College Male</th>
<th>College Female</th>
<th>Adult Male</th>
<th>Adult Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>All &quot;yes&quot;</td>
<td>173</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>All &quot;no&quot;</td>
<td>-122</td>
<td>24</td>
<td>17</td>
<td>27</td>
<td>17</td>
</tr>
<tr>
<td>All &quot;?&quot;</td>
<td>-81</td>
<td>44</td>
<td>34</td>
<td>49</td>
<td>33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B3-I Raw Score</th>
<th>Percentile Rank</th>
<th>College Male</th>
<th>College Female</th>
<th>Adult Male</th>
<th>Adult Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>All &quot;yes&quot;</td>
<td>131</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>All &quot;no&quot;</td>
<td>-114</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>All &quot;?&quot;</td>
<td>-34</td>
<td>49</td>
<td>40</td>
<td>49</td>
<td>36</td>
</tr>
</tbody>
</table>

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During the school year of 1933-34 the writer tested according to the procedure described earlier, all the speech defective students in her speech correction group in the Butte High School. It was impossible to carry on the study with the speech defective children in the elementary grades since they are too immature to co-operate in the personality test. Even younger high school children are apt to answer the questions according to their ideals rather than according to fact. At the end of the school year 1933-34 the writer had in all 144 cases gathered from the two summer sessions at the University of Montana, the Oral English Classes of the Missoula County High School, and the speech defectives of the Butte High School who were receiving training for the correction of their defects.

The statistical data in Table I were computed upon these results of the tests.
TABLE I
Statistical Data

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Average</th>
<th>S.D. dis</th>
<th>S.D. av.</th>
<th>S.D. dis</th>
<th>Cases</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Normal U.A. R.S. Students)</td>
<td>106</td>
<td>10.83</td>
<td>14.13</td>
<td>1.37</td>
<td>225.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. University</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Normal Speech)</td>
<td>75</td>
<td>12.87</td>
<td>16.14</td>
<td>1.89</td>
<td>219.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Normal Speech)</td>
<td>31</td>
<td>6.4</td>
<td>6.32</td>
<td>1.36</td>
<td>243.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Entire Control Group Divided into</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Submissives (0 to 33 P.R. on B4-D)</td>
<td>39</td>
<td>9.66</td>
<td>11.86</td>
<td>1.90</td>
<td>159.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Normals (34 to 66 P.R. on B4-D)</td>
<td>33</td>
<td>9.52</td>
<td>12.21</td>
<td>2.13</td>
<td>232.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Dominants (67-100 P.R. on B4-D)</td>
<td>34</td>
<td>13.14</td>
<td>17.55</td>
<td>3.01</td>
<td>302.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. All Speech defects including B.H.S. students who had been corrected.</td>
<td>38</td>
<td>2.39</td>
<td>1.25</td>
<td>.203:206.29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Speech defects whose defect was evident in test.</td>
<td>30</td>
<td>2.37</td>
<td>2.057</td>
<td>.375:204.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Lispers (All defects other than stuttering)</td>
<td>16</td>
<td>2.915</td>
<td>2.562</td>
<td>.64:193.75</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table No. I (continued)
Statistical Data

<table>
<thead>
<tr>
<th>S. D. Dist</th>
<th>S. D. Avg.</th>
<th>S. D. Diff</th>
<th>Critical Ratio</th>
<th>Correlation between Speech and B4-D</th>
</tr>
</thead>
<tbody>
<tr>
<td>B4-D</td>
<td>B4-D</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.  
84.11  
8.17  
8.28  
25.9  
\( r = + .11 \)

2.  
63.48  
7.43  
7.66  
29.96  
\( r = + .15 \)

3.  
63.19  
11.35  
11.41  
20.76  
\( r = + .24 \)

4.  
21.95  
3.52  
4.  
37.56  
\( r = + .04 \)

b  
22.29  
3.88  
4.42  
50.43  
\( r = + .30 \)

c  
30.88  
5.30  
6.09  
47.56  
\( r = + .06 \)

5.  
55.13  
8.94  
8.94  
22.67  
\( @ r = + .04 \)

6.  
50.135  
9.153  
9.161  
22.09  
\( r = + .02 \)

7.  
58.98  
14.75  
14.76  
12.9  
\( r = + .22 \)

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<table>
<thead>
<tr>
<th>GROUP</th>
<th>Number of Cases</th>
<th>S. D.</th>
<th>Average Speech</th>
<th>S. D. Av. Speech</th>
<th>Scores</th>
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<tr>
<td>8. Stutterers (Including 4 cases whose defect was not evident in the test.)</td>
<td>16</td>
<td>1.90</td>
<td>1.33</td>
<td>.3325</td>
<td></td>
</tr>
<tr>
<td>9. Stutterers (Defect evident in test.)</td>
<td>12</td>
<td>1.386</td>
<td>.369</td>
<td>.107</td>
<td></td>
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</tbody>
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Table No. I (continued)
Statistical Data

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<th>Average B4-D Scores</th>
<th>S. D. Dis.</th>
<th>S. D. Av. B4-D</th>
<th>S. D. Dif.</th>
<th>Critical Ratio</th>
<th>Correlation between Speech and B4-D</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. 209.6</td>
<td>53.31</td>
<td>13.33</td>
<td>13.33</td>
<td>15.57 r = -.06</td>
<td></td>
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<tr>
<td>9. 201.16</td>
<td>42.475</td>
<td>12.28</td>
<td>12.276</td>
<td>16.27 r = -.55</td>
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The only noteworthy correlation, -.55, is that between dominance as measured by the B4-D scale and speech in the group of twelve stutterers who co-operated in the study. This number is far too small to be the basis for any conclusion. However, the fact that these twelve people stand out in such extreme contrast from the others in every kind of grouping arouses one's suspicion. This negative correlation, -.55, means that since they are low, extremely low, on the speech scale, they are high on the B4-D scale, hence highly dominant. It is traditional that stutterers have ugly dispositions, particularly those of mature years. Does this negative correlation mean that because of the thwarting they have experienced throughout their lives because of their inability to express themselves they have developed strongly dominant traits? Or is the dominant trait fundamental and, because they possess it to such an exaggerated degree that they are constantly balked by society, do they become stutterers? In other words is dominance a defense mechanism of people who are constantly and consistently opposed in their efforts toward self-expression, or is stuttering the result of a superabundance of dominance in a personality which is consistently balked?

The dominant child is the one who is most exposed to
the domination "Don't." His wants are many and many of them are denied. He may dominate a face-to-face situation when only one or two companions are present, but he often fails in a larger grouping much as the playground or the class room.

Returning to the reasoning that the stuttering child becomes dominant, this may be because he is denied normal means of self-expression and must be compensated for his losses. To the degree that such compensation is satisfying, to that degree is the stutterer able to feel himself a member of society and adjust himself to society. To the degree that he fails in acquiring this compensation, to that degree does he become irritable, queer, non-social.

If there is any value in what seems to be indicated in this study - and the writer claims a very little on the basis of only twelve cases - it seems to point out that in correcting speech defects, specifically stuttering, an effort should be made to develop in the individual a more wholesome personality, one in which it it easy to give as well as to take. These people should learn that it is much more graceful to bend than to break. In other words, no speech correction program should be carried on irrespective of wholesome personality building, and a program of personality building may be entirely useless unless such factors as fluent speech are given attention. This is just another plea for the whole child.
PART III

SPEECH DEFECTS WITH METHODS OF CORRECTION

Chapter 1. Speech
Chapter 2. Learning to Talk
Chapter 3. Speech Defects
Chapter 4. Causes of Speech Defects
Chapter 5. Lisping
Chapter 6. Stuttering
Chapter 7. Foreign Accent
Chapter 8. Methods of Correction
Chapter 9. Cases in the Butte Schools.

Summary

Bibliography
PART III

SPEECH DEFECTS WITH METHODS OF CORRECTION

SPEECH

Speech is our chief socializing agent. Primitive man by signs and mono-syllabic sounds conveyed to his companion his few ideas, usually his wants, often his commands and protests. As the race developed language developed. It has always been in a state of flux. Authorities tell us that many words are added to the various languages each year. Slang of one period becomes good usage of the next. To develop this expressiveness is the first function of the schools. Fluency can only come with enriched thinking and an enriched vocabulary. The perfectly coordinated individual with a large experience, a love for words, and a desire to use them may develop into a Webster, a Bryan, a Floyd Gibbons. It is the duty of the school to develop fluency and joy in self-expression in every child up to the limit of his ability. Attention has until lately been directed solely to the leaders in debate, oratory, dramatics. After the tryouts for debate, or declamation, the winners were developed by the expert skill of the debate coach or the teacher of oral English while those who dropped out were left to continue the bad traits which caused them to fail to be chosen. Recently in some places

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attention has been given to the child with a marked
speech defect, a stutter, a stammer, a lisp. Many
"systems" have been developed to cure stutterers, some of
them more or less scientific, others pure quackery. Thus
both ends of our speech problem has been attacked. We have
worked with the embryo orator and sent him out to "represent"
our schools in state and national contests. We have given
some little time and attention to the child with a more or
less serious speech defect. And the great mass of our
school population has gone untrained, uncoached, untutored
in this most necessary of all skills.

We are told that such work is for the specialist, but
is it? Surely the work of correction after bad speech
habits have been developed is the work of the specialist and
often exhausts all of his skill and secures very poor
results. However, the prevention of speech defects is the
work of every teacher and every mother, and the knowledge
of a hygienic speech program should be the possession of
all teachers and all mothers. Such a program carried
through the whole period during which the child is acquiring
language would render unnecessary much of the work of speech
correction. The child who comes to school at the age of six
unable to pronounce his "s's" or his "r's" or his "th's"
is handicapped in that he is using a tool of expression
that is faulty and, since he is satisfied with it, his speech habit becomes more and more faulty. He is not "s" nor "r" nor "th" conscious. He is unable to hear the difference between his pronunciation and that which is correct. He will tell his teacher that he "wan to thchool." If he gets by with this slovenly speech during the first school year, his habit will have become more set and more difficult for him to overcome. And it must be emphasized that only he can overcome them. Teachers and parents may direct, but one makes one's own habits. The direction of the parent and the teacher of the six-year-old lispe must be constructive, motivating, persistent. The theory that the child will outgrow the bad habit is a fallacy. Habits are strengthened by use. They are broken by disuse. The child must learn to use the correct form by using it. Emphasis must be placed not only upon this principle but also upon the absolute necessity of making the child want to express himself well. Dr. Kilpatrick calls this want "mindset." Others name it "motivation." Whatever we wish to call it, it is the desire to speak easily and fluently upon occasion. This desire cannot be promoted in the child through nagging and embarrassment. It is the outgrowth of constructive progress or oral expression.

LEARNING TO TALK

Speech is a conditioned response, a learned reaction. "The infant," we are told in "Speech Training for Children" by Blanton and Blanton, "has stored in his nervous system at birth certain primitive expressions that have been of service in the preservation of the race.--- The endowment that sets the human apart from other animals in the possibility of the large, very nearly limitless, vocabulary of sounds that we call vowels and consonants." 

The development of language, the learning how to use and interpret all the various combinations of vowels and consonants, is one of the most important functions of early childhood. Upon the success of this development depends much of the success of the child in his school life and in the development of his personality, Indeed, the success or failure, the happiness or misery of his whole life, may depend upon his ability to "put himself across."

The infant, after much blabbing and many meaningless sounds, accidentally hits upon the elemental sounds, "ma-ma-ma." The mother is so happy because the child has called her that she responds, "Mamma"s baby," and takes the child up in her arms and amuses it, repeating the "ma-ma-ma" over and over. The little imitator has established 17. Blanton, Margaret, and Blanton, Smiley, "Speech Training for Children", (1920) New York. (Pages not available)
a bond between his elemental sound, ma-ma-ma, and the very interesting and entertaining person. When he again craves the satisfaction of her attention, he calls lustily, "Ma-ma-ma." The mother again responds, amuses and feeds him, and tells him to say "Da-da." The satisfaction derived from his former imitation leads him to imitate again. He has made his first speech; he has captivated his first audience; he has become articulate. He has established bonds between two sets of elemental sounds and two charming people. He has all that is necessary to fulfill the laws of learning, mind-set, repetition, satisfaction. He has learned two words, but he has also developed what Dr. Kilpatrick calls "concomitant learnings." He has learned the joy of social contact, the satisfaction of success, perhaps the method of further learning.

From the time he has spoken his first word the normal child's learning curve rises rapidly. During this time he should hear only correct speech. His mistakes should never be imitated. When possible, the correct form should be spoken after him, not in such a way as to discourage and embarrass him, but so that he will hear the correct form and hearing it will adopt it into his speech habit.

If the child says, "I want a piece of bread," the

18 Kilpatrick, William Heard, op. cit., p. 103
mother may respond, "Daddy, please give John a piece of bread."

When the father is ready to pass the bread to the child, he should say, "Here is your bread, John."

In this way the child has heard the correct stimulus twice. Such a language development program will seldom fail to develop in the normal child an entirely normal speech habit by the time he is ready for school. If some sounds are particularly difficult, specific drill in these should be undertaken. The "stunt" practice explained elsewhere should be carried on informally for short periods. Never fatigue a young child with a long drill. Never worry over his mode of speech. Encourage spontaneity, but insist upon clear, clean speech.

In this "buzzing confusion" that we call life, the child is confronted with so many new stimuli, so many interesting phenomena, that he is hurried from one to the other with little time to collect his impressions, much less to express them. Hence, he often feels so hurried that he wishes to race through his expression and the result is hurried, cluttered, careless speech or perhaps worse, stuttering and stammering.

The reminder, "You are talking so fast that I can't understand you," will usually slow the child down to a
normal speech rate. It will also help him to control his emotions which is such a state of excitement are racing ahead and controlling him.

Here again the laws of learning are active. When the child has controlled his emotions, slowed up his speech, told his story, and received sympathy or applause of his family he has established a bond of self-control which more than likely will be repeated and strengthened when a similar occasion arises, and with a few repetitions will be well on the way to becoming a habit.

Speech is tied up with his every contact. To the extent that these contacts give pleasure they are satisfactory to the child. If he is scolded, punished, thwarted, he is getting very little satisfaction from his new skill. The child is the reflection of his environment. He is not to be charged with his peculiarities. The fault lies in the fact that he was permitted, often encouraged to develop them. There can be nothing amusing or clever or cute about a characteristic which is abnormal and which will test the skill of a specialist to overcome. It is uneconomical both from a financial standpoint and in human happiness. The laws of learning—which the Greeks knew—carry on in speech as well as in every other skill that is acquired. The language environment of the child should be so con-
ditioned that the response is only satisfactory.

Parents are remiss in their duty when they allow a child with a lisp to continue it unchecked until he goes to school. Every effort should be made to overcome all speech defects early. Just as the laws of learning act in establishing good speech habit, so do they act in strengthening bad ones. To wait until the child has gone to school so that the teacher will correct his speech and the child will perhaps laugh at it is like permitting him to go with some physical defect unremedied expecting that he will outgrow it. The parent is responsible for the child's pre-school training and speech is part of this training. The child should be taught the best speech habits possible. His mentality is the only limit that should be placed upon the perfection of his speech. The subnormal child, by his very nature, will perhaps have speech defects. Normal children, because of speech defects, have sometimes been considered stupid and dull, sometimes subnormal. All children should be taught to talk in the most effective speech it is possible for them to learn.

Summary

Speech is the most effective method of self-expression.

It is the duty of both home and school to condition a
child's environment so that he will develop effective, fluent speech as early as possible. If this skill does not develop normally, special measures should be taken to insure to the child this essential skill.
What are speech defects? Ideally any mannerism or variation in the method of speech which directs the attention of the listener away from what is being said to the way in which it is being said is a speech defect. If we accept this as a definition, no one is free from speech defects. This is perhaps a true statement, but because of our doctrine of individualism, the ideal of attaining a mode of speech uncolored by mannerisms and variations is the ambition of few people, and we admit as speech defects only those variations from the normal which cause the individual to have difficulty in expressing his thoughts clearly enough for his listener to understand them. That the most fluent speaker fails in this is evident from the distortion of a simple story after it has been passed along by three or four people. Usually its originator has difficulty in recognizing it when he again hears it. So it is evident that we all have not only speech defects, but also faulty ability to hear and to interpret what we hear. As so often in life, here again the eternal triangle is evident, the speaker at one angle, what he says at the second, and his listener at the third. To the extent that the speaker integrates these factors, to that extent is his speech effective. Whatever enters into his personality and
his mode of expression to cause his failure to do this renders his speech defective.

However much one may wish to strive toward such an ideal mode of expression as is defined in the above paragraph, he must here forego them, because the problem is too real to permit one to philosophize upon ideals modes of expression. In our classrooms are children who are very real problems because they depart so far from the ideals described as to be almost totally unable to express the simplest thoughts clearly. A boy of eleven who had memorized the beautiful poem "September" by Helen Hunt Jackson said it something after this manner:

"The golden rod i ye - o
The corn i turning brown
The tree i apple or-ard
Wi froo i ben - ing down."

Not only did he have this faulty enunciation habituated, but his voice was of such a quality that he could scarcely be heard two yards away from where he was standing. He was singled out as being a speech defective and sent to the speech teacher for aid. He was accompanied by his fourteen-year-old sister who had such a pronounced lisp that the teacher talked her into a corrective program also. When the specialist visited the classroom of the boy to study his case in relation to his group, she
discovered two other children each with a pronounced lisp which should have been corrected in their early school life. Neither was conscious that there was any variation from normal in his speech. If these children had been stutterers this would have been fortunate, but when a lisper has reached the age of eleven years, the only way to correct a defect is to make him conscious of it and to create in him a desire to remedy it. In the case of the fourteen-year-old sister, this was an easy matter and marked improvement could be noted in her from her first lesson.

To the extent that a person is unable to express himself does he become a non-social individual. Many ordinary people have made outstanding successes in life because of a fluency of speech which "put them over" while more brilliant persons were left in the background because of an inability to express themselves. Speech is a skill that begins its development in infancy and may continue to improve throughout life. Children give little attention to the development of this speech skill, learning from their contacts with life the means of communication with this life. They enter school at the age of six with various degrees of ability to speak and from then to the time they leave school at sixteen to eighteen or twenty-two, their success is determined largely by their capacity for self-expression. Little lispers in the first grade become self-conscious and
refuses to talk. The skillful teacher finally overcomes the lisp and to some extent the self-consciousness, but the seeds of fear, of distrust of self, have been sown and may be the root of an emotional disturbance which will crop out later in life, occasionally being a contributing factor in the failure of the individual. Parents who encourage baby talk because it is "cute" and those who fail to discourage it because of the trouble involved are permitting their children to start life with a handicap, and, because our mode of life is so complex, no child should be allowed to start with any avoidable burdens. From the beginning children should hear and be encouraged to use correct speech. Naturally the speech mechanism of the small child can not be expected to function perfectly until it is developed and he has acquired the necessary skills. A six-year-old who is losing his front teeth may lisp on his "s" and "th" sounds. He should overcome this lisp as soon as his second teeth have come. The child who is seven or eight and still lisping needs attention immediately.

Often calling attention to the lisped sound or sounds, having the child use a mirror and make his mouth look like the teacher's will be all that is necessary to correct the defect, but the teacher should know the speech organ so that she can recognize the high palatal arch, the cleft
palate, poorly-shaped, clumsy, and tied tongues as well as crooked teeth and lazy lips. Because children have these latter handicaps, excepting only cleft palate, is no reason why they can not be taught to speak plainly. However, those who have the teaching of such children will have to work a little harder and longer to accomplish their aims. But how much greater is their contribution to the happiness of the child whom they have helped to an ability to express himself fluently. It is like bringing into the sunshine to bloom a flower which otherwise would have paled and withered in darkness.

Speech defects are defects of enunciation, pronunciation, inflection, and voice control which render the speaker unable to convey his ideas to a listener or an audience. They may be grouped into two main classes, lisping and stuttering, which also includes stammering. In her "Speech Pathology with Methods in Speech Correction" Dr. Sara M. Stinchfield, Associate Professor of Psychology of Mt. Holyoke College, has made what she calls a "Working Classification With Common Terminology."

These are:

A. Alalia or delayed speech.

B. Dyslalia or oral inaccuracy, including lisping, careless enunciation, indistinct utter-

ance and letter substitutions or mutations.

C. Dysarthria or stuttering (stammering).

D. Dysphonia or loss of voice after it has been acquired. Sometimes called "Aphonia".

E. Aphasia or partial or complete loss of speech.

F. Distonia or vocal defects of quality.

She further classifies each of the above into their variations. It is of value to us to know these various classes. It should also be noted that one may suffer from one of these or combinations of them. For example: a stutterer may also lisp or have vocal defects of quality. Disphonia or aphonia often accompanies hysteria or may result from the exhaustion resulting from a serious illness as from diphtheria or a prostrating fever.

While one should be more or less familiar with the above terminology, the writer will attempt not to use a technical vocabulary in this study.

Summary

Speech defects may be divided into two classes. It is not necessary to have in one's vocabulary the whole terminology of this phase of speech correction. Stuttering includes stammering, and lisping means any distortion of sound to make one's speech different from that of normal individuals.
CAUSES OF SPEECH DEFECTS

The chief causes of speech defects may be divided into the physical, the mental, and those groups which are the result of imitation. The physical causes are those which are brought about by a malformation or peculiar development of or accident to the speech organ. Poorly shaped mouth and throat due often to enlarged tonsils, and adenoids, large clumsy tongue, misshapen tongue, crooked teeth, high palatal arch, paralysis of various parts of the organ, cleft palate, hare-lip and deafness are the physical conditions which are usually responsible for speech defects. Many of these can and should be remedied by surgery, and often the surgery alone will correct the condition. However, re-education may be necessary to overcome the bad habits acquired through years of use of a misshapen speech-organ.

The mental causes for speech defects may be divided into those due to mental dullness, which one usually encounters in subnormal and feeble-minded children, and those due to emotional and neurotic conditions which one encounters oftenest in the adolescent child. The former are usually recognized as lisping and are due to the child's lack of co-ordination, his perceptual dullness, his general inertia. They are comparable to his shuffling walk, his inability to learn to tie a bow knot, to model clay, or draw or write.
All the child's motor activities are subnormal. Hence, he can not, and often can not be taught to, talk plainly. However, even these children may be materially improved by remedial speech work. The latter, those disturbances in otherwise normal children caused by emotional and neurotic conditions are usually recognized as stuttering or stammering.

From the standpoint that any peculiarity makes a child non-social often to such a degree as to constitute a serious problem, mental hygiene demands that all avoidable peculiarities should be eliminated as early as possible. The fourteen-year-old girl, whose case has already been cited, was told over and over again that her lisp was cute. She, however, had no illusions as to its cuteness and went about correcting it with an earnestness that could not have resulted in failure. The pampered spoiled child, surfeited with affection and attention is often a lisper, having also all the "clinging vine" characteristics, using these peculiarities lisp, whining, clinging, weeping, wheedling, to gain the ends which he desires. This is, of course, an unwholesome attitude and no wise parent or teacher will encourage it. These children cling to their baby manners in order not to be forced to assume the responsibilities which their more grown-up state would place on them. Freud and his followers have discussed
these traits after their theory of wants and urges which is interesting, but to which few of us would wish to subscribe completely. His theory is that almost every conflict is the result of sex desires that have been suppressed and that the peculiarities which develop are "subconscious" efforts of the individual to compensate for these suppressions. Whole systems of correction have been built around this theory, but likewise a vast amount of constructive work has been done by people who never heard of Freud and others who have little faith in his doctrine.

In her discussion of Speech Handicaps in her work which has already been cited, Sara M. Stinchfield includes a word-blindness. She cites studies made by Dearborn of the Harvard Graduate School of Education who associates difficulty in learning to read with "mirror-writing", left-handedness, and a short auditory memory span. "Mirror-writing" is often associated with left-handedness, and many causes of stuttering have been attributed to the emotional upheaval caused by forcing left-handed children to learn to write with their right hands. To realize the difficulty such children encounter, a right-handed person needs only to attempt to work left-handed for a time. Added to this difficulty, one must remember that the left-handed child 20. Stinchfield, Sara M., op. cit., (Page numbers unavailable).
is not only attempting — often against his own desire — to change his entire act of left-handed motor habits and skills into right-handed motor habits and skills, but he is also expected to carry on a school program that is built upon the needs and abilities of right-handed children. The left-handed child is the poorest-right-handed writer in his group. He is slow and seldom finishes his work. He is fatigued by the excess of effort needed to do the work of the poor slow writing that he does. It is little wonder that he develops feelings of inferiority which are often associated with stuttering. The whole vicious family, left-handedness, inability to read because his tendency is to read from right to left instead of from left to right, clumsiness, poor writing, unfinished work, all work toward his failure. He develops the attitude of failure. He fears every recitation. He stumbles first over some exercise. Later he stutters. Some child laughs at him. He is convinced that he is dull and stupid. Each attempt to carry on is a repetition of the same dreadful experience, and the habit is well on the way to becoming fixed.

A little boy who had passed a good intelligence test was given a book which should have been extremely easy for a child of his age to read. He read, but with considerable difficulty. In his struggle over one word the examiner
told him to spell the word aloud. He spelled it backward. He was later told to write what he could remember of his spelling lesson of the day before. He wrote four words, among them "duck" and "night". They were all written correctly except "night" which he wrote "nigth." When asked to spell "duck" he said "K C U D". Upon being asked if he knew what was the matter with his spelling and reading, he said, "My teacher says I spell backward, but it looks all right to me." The strange thing about this child is that he had learned to read at all. He had no phonetic assistance in his reading. He learned each word by rote memory. It could not be ascertained whether or not he had been left-handed as he didn't know and he came from a broken home so that no record of his pre-school history was available.

In discussing causes of speech defects it is necessary to consider seriously that imitation is the foremost cause. We learn speech entirely through imitation. Even a dull child from a home of culture will have a better vocabulary than a brighter child from a home where there are few cultural advantages because he hears and can imitate better speech. In a school where there is a large percentage of Finnish children, the use of "de" and "dem" and "close" is almost universal. In another where there are many Serbian children, almost every one says, "I went John's
The children of a stuttering parent are extremely apt to be stutterers. Children who have spent their early years in the West may go to Boston or New Orleans for high school and return in two or three years with their speech strongly marked by the speech of the people with whom they have been associated. A girl may have a chum who lisps and in a short time develop a lisp which will be difficult for her to lose even if she wished to overcome it. A boy may play with a stutterer and develop a stutter himself. Children have been known to develop a stutter from mocking a stutterer and a case as cited where a child became a stutterer as the result of playing with a deaf mute.

Because imitation is such a large factor in the development of speech, it is imperative that children should hear on all occasions the best examples of speech. Some quiet mothers fail to see the necessity of talking to their children. The oldest child in such a family is very apt to develop defective speech. The child must express himself. If he has not the example of his mother's speech, he will develop a biggerish of his own. Often this improvised language will be passed on to the younger members of the family for the mother considers it her duty only to feed and clothe her children. They must find for themselves
a method of expressing themselves. A family of four children ranging from the ages of four to ten years, not one of whom spoke so that he could be understood, were the children of a studious woman who lived in the country. Her abnormal thirst for knowledge caused her to spend every free moment she had reading. Even while she carried on her necessary duties for her family she was so engrossed in her studies that she seldom spoke. Her intention was to teach her children at home as no school was convenient and it was impossible for them to have contact with other children. Their only contact with language was the few commands or calls they heard from their mother. The result was a patois which they developed and through which they communicated with each other, but upon being spoken to by other people, as sometimed they were, they were shy, uncomprehending, queer. The shock of the death of the oldest child brought the mother to her senses and she gave the others a little mote of her attention. However, they carried on their own language among themselves for years. This is perhaps an extreme case, but very often a child with a speech defect is found to have a quiet mother, the one who talks little and seems to be able to find nothing to say to a child. Children are hungry for the power to express themselves. They should be talked to from their
earliest infancy. As soon as they are taught the name of their garments, their toys, the parts of their body, in fact everything with which they have contact, very few concessions to baby talk should be made. The family should never take up the child's mode of speech. No matter how amusing his improvisations are to the family, he should not be encouraged in its use after he has the ability to speak the word plainly. It is rather ridiculous for a whole family to say "wegables" because John can't or doesn't say "vegetables."

Adolescent children very often develop special defects because of fear of teachers. This fear sometimes is extended to the members of their classes. These fears evidence themselves in bashfulness, refusal to recite, developing an air of braggadocio, or boldness, and occasionally, in hysterical weeping or laughing. The child who stands and hesitates, groping for idea, often finds it difficult to express himself because of his insecurity resulting from this fear of class-mate and teacher. Teachers can practice no better mental hygiene than to instill into these children feelings of security and self-respect.

A boy who had developed a slight stutter in the third grade was at times able to overcome his trouble. In the upper grades he met two or three teachers who were not entirely sympathetic, and in their eagerness for correct and rapid recitation, built up in the boy an anxiety which
developed into a serious stutter in high school. He was very anxious to overcome this difficulty, but it was a long time before he told the reason for having developed it. He was particularly afraid of one teacher, feeling that she lacked sympathy.

Teachers can do much for these boys and girls by developing an informal attitude toward them. They must have friendship and kindness, and it is dangerous to insist upon too serious and too formal a routine for them. High school teachers, in feeling that they are dealing with more responsible people than elementary school children, are apt to demand the same degrees of independence, security, and poise, in all students, that are possible in the children who have by their environment been able to develop such qualities. Surely, the school should help make possible for these young people what they have missed in their environment,—an ability to meet their fellows on equal footing. Much can be done by assuming an attitude of friendliness and interest, and by realizing that every child can not be 100% perfect in every subject. A teacher's voice and attitude help materially in keeping children in a calm and receptive attitude. Scolding, nagging and sarcasm are not conducive to mental health. Whether or not the scolding is directed toward the stutterer, it affects him.
Summary

To summarize the causes of speech defects we may say that they are generally either physical or mental. The physical causes are those resulting from a faulty, diseased or malformed speech organ. The mental, which include those that result from imitation and difficulties associated with word-blindness, left-handedness, and "mirror-writing," also include those due to mental dullness and those caused by shocks, fears, illnesses. These fears which the writer has discussed are often developed in the school. Accidents occurring in early childhood often cause stuttering which is carried through life.

Speech defects are both functional and organic and hence may be caused by anything which disturbs the functional processes as frights, shocks, humiliation and embarrassment, or illness; and by anything which renders the speech organ ineffective as adenoids, tonsils, highly arched palate, mal-occluded teeth, cleft palate, and by a diseased or scarred condition of the central nervous system. Hence such diseases as chorea, meningitis, infantile paralysis often leave speech defects in their wake.
LISTING

Keeping in mind that this work is being organized not for specialists, but for classroom teacher, and not only for the correction, but also for the prevention of speech defects, we shall take up the subject of lisping as meaning any distortion or mutation of speech including cluttering and mumbling. Children with poor auditory memories, those who are more or less tone-deaf, who have difficulty in catching tones, who seldom understand what is said to them the first time it is said, are very apt to have careless habits of speech. They imitate what they hear in the manner in which they hear it, but their auditory perception is so dulled as to give them a very imperfect impression of what has been said. The following example in the visual field is analagous. A very near-sighted person sees imperfectly or not at all that which is within the range of vision of the person of normal sight. The individual with poor auditory perception may have a perfect auditory organ, but the synaptic connections carrying the stimulus are so poor as to cause a faulty reaction or perhaps no reaction at all similar to the visual reactions of a near-sighted person. The little boy who said, "The golden rod i ye-ow" had heard the words spoken correctly all his life, but they had not made clearly defined im-
pressions or he would not have been satisfied with his distorted utterance of them.

Thus it may be seen that the lisper must not only be made skillful in pronunciation of the sounds he distorts but he must be made to hear them correctly in order to make them a part of his speech habit. He has the double duty of breaking a bad habit by disuse and replacing it by a correct habit. It can not be over-emphasized that he must be helped over this period constantly both in the home and at school. Even where it is possible for him to have the attention of a speech specialist, he must be helped and encouraged at home and at school, since the work of the specialist cannot be fruitful unless the corrective work is carried on continuously. A caution is perhaps in order here. The lisper should never be nagged at and embarrassed. A quiet correction when a lapse occurs is usually all that is necessary. Praise should be given unstintedly for success whenever it has been accomplished even to a slight degree. Carefully teaching a child a short poem which contains several of his difficult sounds and permitting him to say it before his classmates, encouraging their applause and their constructive criticism, will be a large step in establishing in him a desire to correct his bad habits and a belief in his own ability to
do this.

We often associate lisping with the confusion of th for the s sound and do not realize that the inability to pronounce "r" or "g" or the substitution of one sound for another is also lisping. One often hears, "Johnnie has something the matter with his speech, but I can't make out what it is." Upon being requested to say some Mother Goose rhyme one may decide immediately that Johnnie has a lisp, but the examiner must also decide what causes it. Is it the result of poor auditory perception, or faulty use of the speech organ, or of some malformation? A child whose throat and nose are blocked with enlarged tonsils and adenoids is singular if he does not have a speech defect. Certainly the quality of his voice is impaired and his fluency is halted by the effort necessary to supply air to the speech apparatus when some of the air passages are not functioning. If it is definitely determined that the difficulty is the result of adenoids and tonsils, the child should have these removed. If after a reasonable time the trouble continues re-education may be necessary to establish proper habits. If the difficulty arises from a thick, clumsy tongue, crooked teeth, a lazy lip, drill should be undertaken to overcome these difficulties.

Some of the devices which are not only of value for the correction of speech defects, but are good for everyone will
follow. The babbling sounds of the infant may be undertaken to strengthen the tongue and adapt it to the delicate work for which it was intended. Rolling it up from the sides, turning it over upside down in the mouth, trilling, reaching out with it as far as possible and drawing it back rapidly, any stunt that requires co-ordination and speed is good for an inactive tongue. Children should be encouraged to take these exercises before a mirror so that it is possible for them to imitate more nearly the teacher or other children in their stunts. Blowing soap-bubbles, blowing a feather, blowing through relaxed lips as an infant making blbbles does, pouting and pursing the lips, practicing various kinds of smiles, all help to overcome a laziness in the upper lip which is often a marked defect in public speakers, detracting immeasurably from the effectiveness of their offerings. Many people with this defect have a mumbling quality in their speech. Whistling, both with the lips and the tongue, is a splendid exercise and, even at the risk of their "whistling their tune out of tune," children should be encouraged to whistle.

Memorizing and repeating tongue twisters of the "Peter-Piper-picked-pa-peck-of-pickled-peppers-" type is a splendid exercise because it calls the child's attention to a specific sound and gives him practice in creating it. The
nonsense contained in most of these tongue twisters is amusing to children and they vie with each other for skill in producing them rapidly and correctly. Fun should be the predominating motive for this kind of work. The teacher may challenge a child to say "what I am going to say." Or she may place a tongue twister on the board with the suggestion that the children race with each other in memorizing it and repeating it.

Another element of nonsense which is thoroughly enjoyed by children is the recitation of tongue twisters, nursery rhymes, or the alphabet with the kind of oratorical expression with which the election orator expounds. This calls the children's attention to the element of inflection and as a result of such practice tone monotony may be overcome in serious reading and recitation, not artificially, as is suggested above, but because when variety of tone has once been secured, it is more easily secured again.

Games, particularly those known as language games, are valuable when one of the teacher's aims is the correction of faulty articulation, pronunciation, enunciation, and tone. The telephone game is particularly good. The teacher may at first "call up" each child and hold a short conversation with him. It is better to have such a conversation brief, but the child must be expected to utter
each sentence well enough that he could actually be understood over the phone. In order to preserve the illusion, children may have a phone-booth in a corner of the room from which they phone, or they may close their eyes while sitting at their desks. Often they enjoy bringing their toy phones to school to play this game. If possible, actual use of the telephone should occur. Marked improvement is possible in a short time in children who have only slight defects of pronunciation and quality of voice if the skills acquired in such an exercise are carried over into reading and conversation.

Broadcasting is another game which is interesting to most children in this day of the radio. A regular program of broadcasting may be carried out each week, only those participating who have done something very well during the week. Here the teacher's skill is necessary in seeing to it that the aggressive children do not monopolize the programs and in giving the child with a slight speech defect a taste of success which will motivate his efforts to continue to correct his difficulty. On these broadcasting programs there may be a song by the class, a poem which some child has read rather well, a joke which may be read, Riddles, or an original story may also be given. The illusion is preserved by having an improvised microphone
placed at the front of the room at which the announcer stands. Such programs are always helped by the presence of an audience. It is always possible in a larger school to invite another class or the principal to hear the program.

Playing Store is a good device. Because children like the semblance of reality even in play, a model store may be supplied. Usually enough of such material can be easily supplied by the children. In playing the game good manners, complete sentences, distinct utterance, should be insisted upon. The storekeepers may be elected or may be appointed by the teacher. The latter is perhaps better since she can then choose the child who most needs the practice in talking. The other children may be grouped in families who go shopping together, or the "mothers" of the families may send their children on errands. Much spontaneity may be evidenced while the teacher has constant control of the situation. While Mrs. Jones' family is shopping, the other groups may constitute an audience. When Mrs. Field is organizing her meals for the day and sending Mary to do the shopping, Mrs. Jones' family has returned quietly to their seats so as not to spoil the game. Mr. Brown may return home hurriedly with the news that he is leaving immediately for a fishing trip and it is necessary for Mrs. Brown to get his lunch ready, so she
must send Harry to the store for the necessary food.

Never should such a game deteriorate into a noisy affair such as children may play unsupervised on the playground. They should realize that they are being allowed the fun of play to make possible and enjoyable necessary skills which they thus acquire. Because children as well as grown-ups love play, they are delighted with such dramatizations and often carry out most interesting variations.

Summary

These are general suggestions for furthering the development and motivation of speech skills. Many others might be suggested and every teacher has pet schemes or devices of her own which help children to fluency and correct (see p. 82) utterance. The exercises are of value to teachers who are interested in this work, first because deep breathing is a hygienic practice and a good habit for everyone to form early in life, and secondly, because these exercises are devised to develop every part of the speech apparatus except the teeth, tongue, and lips. By correlating with them various sounds which involve the teeth, tongue and lips, they may be made effective for the entire speech apparatus. For instance, in exhaling in the "oo" exercise one may easily use the syllable loo, or loo-loo-loo, etc. Similar-
ly, la-la-la may be used or any other consonant one wishes may be used with these sounds.

**Lisp**ing is most often a functional defect and is corrected by patiently re-educating the individual. It is often found in a person who has poor auditory perception. Therefore he must be taught to hear as well as to see and feel the sounds that he makes.

**Lisp**ing is a speech problem that is most prevalent in primary grades. When a child’s dentition has developed so that he has his permanent incisors and canines, he should be expected to speak without **lisp**ing. If he continues to **lisp** past this time, a program of correction should be started. He should be given the assistance of visual and kinesthetic stimuli to supplement the auditory impressions which he receives, but which are not of sufficient force to cause him to react with a normal degree of success.
STUTTERING

The causes of speech defects were divided first into physical and mental and then into the various classes of these two divisions. Emphasis was placed upon the fact that most lisping is the result of physical causes, adenoids, and tonsils, poor auditory perception. Stuttering may also have a physical background, but is more often the result of a mental condition. A very few younger children stutter. It is very largely a defect that develops at the onset of adolescence. It is often associated with left-handedness and wordblindness. It may assert itself after an exhausting illness or a severe shock. It is usually associated with feelings of inferiority. There is little correlation between stuttering and subnormality. In fact many children of very marked ability are serious stutterers. Rapid thinkers, people whose thoughts far outrun the possibility of expressing them, are apt to develop stuttering.

Whether or not one agrees with the behaviorists that left-handedness is an acquired trait, he may be sure that changing left-handedness to right-handedness has often caused such an emotional disturbance as to result in stuttering. It has been suggested earlier that in order to experience some of the difficulty the left-handed child experiences in such a change, a right-handed person might
attempt some skill such as writing or cutting with his left hand. If to this were added the constant nagging and fussing that often accompany much a change for a child together with his feeling of failure in being unable to keep up with his right-handed classmates, one may readily understand the onset of this speech disturbance. Having stammered once or twice, the fear of stammering, leads this poor afflicted child, afflicted first with left-handedness in a right-handed world, afflicted then with an environment which makes few concessions either to his left-handedness or to his stuttering, afflicted finally with his own self-consciousness and feeling of inferiority, to stammer again, and when this has occurred often enough the habit is formed. It is a habit of fear. The child may in time overcome the fear, but his speech habit will have become fixed. When this has occurred, it is almost impossible even to hope for correction.

After severe illnesses, children have developed stutters and stammers, simply because their whole nervous system is so over-taxed by the illness that it is impossible to add another strain to it without causing some sort of breakdown. This breakdown often manifesting itself in a stutter.

Shocks are the cause of a vast number of stuttering
cases. A child, four years old, ran out of the house to play and a large dog jumped out of a dark alley at him. He was so frightened that he began to stutter. His parents believed that he would "out-grow" it. Nothing was done for him until he was grown and sought help for himself. There were times when the spasm that accompanied his attempts to speak was so great that he was unable to move. As an adult he was helped by an intelligent study of his own case, but he was never cured.

Everyone has feelings of inferiority at times. They are normal reactions. Most people know that they are not the peers of Einstein in the realm of physics, or that they cannot hope to vie with Knute Rockne either in popularity or in leadership. However, this knowledge does not cause them any anxiety. It is when they fail to measure up satisfactorily to their own associates, either because of lack of ability, or fear, or embarrassment, that they develop the feelings of inferiority which may cause stuttering to develop. A complex is defined by psychologists as an emotionally tinged constellation of ideas. If the emotion which colors such a constellation of ideas is fear and the anger which usually accompanies fear, its unpleasantness will arouse so much pain and discomfort as to be deeply imbedded in the consciousness. Hence the
danger of constant failure manifests itself. Also, the necessity for occasional praise for all children is evident. As people are unaffected by comparing ourselves with Einstein or Rockne, so are very few destined to great successes, but they are affected very definitely by the commendation or the scorn of their neighbors. The intense craving of the child for praise, his very keen desire for the attention of the teacher, may manifest itself in the most non-social manner. He may appear bold and "hard-boiled." He may be sulky and morose. He may only be lazy and mischievous. He has adopted these attitudes as a defense. It is his way of soothing his hunger for the word of praise and encouragement that are necessary for his self respect. The stutterer often has these feelings, these cravings. A smile, a joke, an informal and friendly attitude will be an immeasurable kindness to him. Even in the case of the bright child who stutters, indeed, often in these cases, we find this tendency toward inferiority.

Stuttering manifests itself not only in the repetition of initial sounds, but also hesitation between words, the "well-a" and the "why-a" bridging over the gaps between ideas which are to be expressed orally. It is also evident in the child who cannot say anything at all. A girl who is perfectly fluent in informal conversation cannot answer a direct question in the class room. She has never
had a stuttering spasm. She reads beautifully to younger children, but she cannot start a reading without help when she is in a group of classmates. This is distinctly a stutter, but would not be so classed by one not familiar with the case. In fact, it seems to be, on the face of it, a sulky silence due to unprepared lessons. It is only on her written work that it is possible to see that this child is carrying on, and it is only after a confidential interview that one can appreciate the difficulty with which she is carrying on.

Nervous high strung children should all be kept as quiet as possible. This busy life which we lead stimulates us all unduly. It is very easy for the excitable type of child to be taxed far beyond the point of safety. These children love excitement. They seldom go to bed without being told. They are in the midst of every thrilling encounter on the playground. An eighth grade boy with a pronounced stutter was sent to the writer in the fall. Along with the usual breathing exercises, oral reading, and rhythmic work, it was suggested that he should have more rest. He was thin, highly stimulated, ready to "go off" at the slightest provocation. He said that he couldn't get more rest at the time as he played football and was very necessary to his team. When the football season was ended, more rest was suggested again, but it was found
that he was on the basketball team and had to play and practice regularly. Carrying on his school program, music lessons, and athletics, the boy carried a stimulating program which began at 7:30 A.M. and was seldom completed until 10:00 in the evening. When the basketball season was completed, the boy was urged not to go into any organized play for the remainder of the year. His play was to be less formal, less active, less stimulating. He was urged to get to bed earlier and to have short periods of relaxation during the day. After this sort of program had been carried on for a few weeks the boy began to show a marked improvement. Rest and the laws of learning were working to eradicate this boy's stutter. He was a bright boy who had plenty to talk about and was anxious to talk. He learned in a few weeks that when he was calm and self-possessed he could express himself better. Hence, he fulfilled the first and third laws, mindset and effect, and there was left for him only to exercise, to practice expressing himself in a quiet easy manner. Upon the amount of this practice depends his ultimate success.

Summary

Stuttering is usually a functional disturbance. It is more frequent in adolescence than in earlier years and in boys than in girls. It is associated with left-handedness
ans word-blindness. It is often the result of shock or fear. A program of mental hygiene with attention to the physical well-being of the individual and re-education in the matter of speech is the safest procedure with stutterers.
FOREIGN ACCENT

Foreign accent, like all other defects of enunciation, is caused by faulty reproduction of certain sounds, both vowels and consonants, and this is often accompanied by peculiarity of voice. For instance, we often hear of the "singing Swede" and Serbians, Romanians and other southern Europeans as a rule have deep, heavy voices. Many of these Southern European women have voices as coarse and as deeply pitches as men. These people, usually in a family group, are thrown into their new environment as immigrants with only a few words of our language, these often resembling words with the same meaning in their own language. Their whole situation is confusing, often embarrassing. They must eat and the sort "brot" obtains bread, therefore they have no need to distinguish between the word as it occurs in their own language and in ours, and, until something calls their attention to this difference, it does not exist for them. Often no one calls attention to the foreigner's mispronunciation, sometimes through a fear of offending, usually because of indifference, until the children start to school. Then these children, some of whom may have been born in this country, enter school with their language habits formulated and distorted by a fusion of the accents and grobues of their parents and the language that they have picked up on the playground. They are not conscious
of many sounds that enter into our language. Borden and Busse in "Speech Correction" give the following reasons for them not recognizing their distortion of sounds.

(1) "They encounter in spoken English a number of totally unfamiliar sounds, sounds which do not occur in their mother languages at all.

(2) "They encounter in spoken English a number of sounds, which, while familiar to them as phonetic units of their mother tongues, occupy in English a new and unfamiliar position—i.e., they encounter sounds in final positions in English which occur only initially in their mother languages, and vice versa.

(3) "They encounter in spoken English a number of words which differ so slightly in acoustic content from words of like meaning contained in the native languages, that their untrained ears often fail to note any distinction whatever.

(4) "They encounter in written English a new and utterly bewildering system of spelling."

This last, our system of spelling, is not of material importance to the foreign child entering our school system at the age of six years. It is a serious matter for adjustment for the child who has had three or four or

more years of training in the schools of his native land. The German child has learned to pronounce his "w's" as "v's". The Spanish of Mexican child gives "j" the sound of "h". The Finns, Swedes, Norwegians, and Danes substitute the "y" for the "j". Until the attention of the individual is directed to the distortion he is making, until he wants to learn to speak without this distortion, and finally, until he had the kinesthetic reaction necessary, that is until he is able to feel and hear and see the sound, he will not be able to change his "vas" to "what" or his "yust" to "just". The Jewish and Serbian child will continue to say "somethink" and "long-g". Most of them will never recognize the "th" as anything other than a "d".

Because they carry on spontaneous speech in the home while in the school their speech is supervised, it is not possible to expect them to correct their accents. Often too they live in settlements so that their whole life outside of school is lived in an environment where foreign language or broken English is all that they hear. It is even possible that the child is discouraged in his home and neighborhood from correcting his speech by the fact that the speech he is taught in school is considered different and he may be accused of snobbishness by adopting it.

Here is a serious conflict which may be at times the cause
of nervous disturbances and mal-adjustments. The child is attempting to swim a double current. He wishes to please his teacher and comply with the school standards, but he cannot face the ridicule of his out-of-school associates if he tries to carry his new mode of speech into his every day life. Hence, the child carries his foreign accent much longer than should be expected because it is impossible for this little swimmer in the sea of a complex environment to make real headway. It is only by establishing a working contact with the home that the school can carry out its objectives in teaching children to speak our language uncolored by brogues, accents, and provincialisms.

The success that the school attains in carrying out this objective is remarkable. Particularly is this true where there is a conscious effort throughout the entire school. One goes into a first or second grade and can easily distinguish the various nationalities represented by the speech of these children who are making their first conscious effort to speak English. Before they entered school speech was merely a matter of expressing wishes, of gaining a desired end. It usually mattered little to this child whether he spoke our language or another or a mixture of both. Now he learns to differentiate between the two languages, but he is still unable to articulate many of the
sounds which occur in English. The "th" sound is unknown to him and he substitutes for it the "d". which sounds similar to the "th" and is made in a similar way. The distinction between these sounds is too fine for his untrained ear to note. His attention must be specifically called to the differences between the two sounds. He must through imitation, with the aid of a mirror, be led to successfully execute the "th" sound independently. He must be given drills to develop in him the kinesthetic reaction, the hearing, feeling, seeing, sensing of this sound. He must finally be led to use it constantly; in the language of James he must never let the bad habit occur.

Perhaps the substitution of the "d" sound for the "th" is the most universal error of foreigners learning English. It is also characteristic of many of the provincialisms which we are called upon to correct. It may be that New York is colored by it because of the vast number of foreigners who come to New York dominating the native Americans by their very numbers and injecting into the local speech their most outstanding traits. It is perhaps a little easier to overcome such a trait of speech in a foreigner who is learning the language than it is in a native whose speech habit has been formed in and conforms perfectly to his environment. The foreigner is conscious of his imperfect
speech and is desirous of improving it. The native believer that his is the correct made of American speech and wishes all other modes to be made to conform to his. He has no desire to change and seldom does a mature person lose completely the characteristics of speech which he learned as a child in some locality where provincialism amounts almost to dialect. If these characteristics are merely matters of voice and inflection it is not always desirable to change them. For example, the Southerner has a much pleasanter voice than the "Down Easterner," with his nasal twang, but there is little excuse for his distortion of the language with his "hyar" and "skeer" and "you-all". He reads and writes English as it is universally written, but he speaks it in a far different fashion.

The method of correction of both of these problems, that of the foreigner and that of the person with a provincial accent, is the same. He must hear the difference between the correct utterance of the word and the way he utters it; he must want to correct the rendition of his word; he must drill upon the sound as the musician drills upon any unit of his technique; he must adopt into his speech habit his new skill, that is, the newly acquired sound must always be used whenever he speaks a word in which it occurs.
Borden and Busse in the volume already cited, "Speech Correction", outline the following steps in order to achieve a "cure" in a person whose language is distorted by a foreign accent.

(1) "Make the patient conscious of the acoustic difference between the standard sound that he should produce and the defective sound that he does produce.

(2) "Develop in the patient a clear visual image of the adjustment that his speech mechanism must make for the production of the new sound.

(3) Develop in the patient muscular control necessary for the production of the new sound.

(4) "Develop the patient's tentative and uncertain production of this new sound into a firmly rooted speech habit - i.e., transform it from a consciously performed act into an automatic act."

It is best not to confuse the person with too large a program of correction at a time. It is well in a school where such a program is necessary to outline certain goals for various grades. In order to do this it is necessary to analyze the outstanding defects and concentrate in each grade on the correction of a portion of them. Each advanced grade should be responsible not only for its own

22. Borden and Busse, op. cit., p. 177 ff.
portion of the correction program but also for all that has gone before. In schools in districts where there are many foreigners where such a program has been followed over a period of years, there is very little more of foreign accent noticed in seventh and eighth grades than in schools where there are few foreign speaking children. And we must not forget that the children in such a locality have the very great advantage of being able to speak and often to read and write two languages.

**Summary**

The training in this work must be specific, consistent, both intensive and extensive. In order to give children sufficient opportunity to use enough English to habituate correct speech, much time should be given to oral English and to oral reading. The former must be well planned and supervised. The latter gives the child an opportunity to use the vocabulary of his new language without the necessity of creative thinking. It also gives the teacher the opportunity to discover difficult words which she may develop in enunciation and articulation drills and which may be injected into the child's vocabulary in a correct form without his always having to go through the trial and error method of acquiring. Speaking correct English is not achieved by a twenty minute lesson.
in oral English once a week. It is done only by a consistent program carried on through years.

Foreign accent is usually a local problem. Immigrants settle in communities which complicates the problem of the school, for the children from a home in which a foreign language is spoken entering a school where only English-speaking children are entitled overcome their foreign accent in a very short time. But the school in a community of Swedes or Austrians or Russians has a specific problem in teaching these children the English language without the brogues and accents peculiar to their native tongue. A specific program with emphasis on oral reading and oral English should be laid out by teachers in such schools so that certain objectives in such schools are attained in each grade.
METHODS OF CORRECTION

In discussing methods of correction, methods of prevention should be emphasized first. It is estimated that 78 per cent of the cases of stuttering can be corrected. There is no doubt that many cases should be entirely prevented by recognizing and eliminating the causes at their inception. Without exception every stuttering case known to the writer has reported a fear of some person or occasion as an aggravating cause for development of the defect. Often this fear is the result of a direct clash between the teacher and the other pupils, and the dread of a similar situation arising between the teacher and the child himself. When the harassed teacher calls upon this already fearful child, he is apt to hesitate, or stammer, or to experience a complete inhibition so that he is unable to answer at all. In fact his ideas may be completely obliterated. The teacher's eagerness for the speed and perfection leads her to hurry the child. Her impatience and exasperation in the other case often carry over in her voice and manner and the fear of the teacher is strengthened in the potential stutterer. This is just as apt to occur in the home. It occurs on the playground, particularly if a bully dominates the playground. Those who have children under their charge can do no better than to adopt an informal and friendly attitude with
them all. When this attitude exists, even the unpleasantness of criticism and punishment will not establish fear with its accompanying frustrations and inferiorities.

Each stutterer needs individual treatment. Many "systems" have been worked out which are supposed to cure the stutterer overnight. At present, psychologists everywhere are experimenting with the methods which include hypnosis, change of environment, the use of castanets by the teacher each time the patient stutters, and many more. Because it is very easy to complicate a condition which is based so entirely on a nervous condition, only conservative measures should be used by us who deal with all the children.

A description of a case that has been cured will suggest some of these methods. A. O. developed his stutter down in the grades. He was referred to the writer for correction by one of his teachers shortly after he entered high school. He was fortunate in his first interview with the writer not to stutter. He gave an informal discussion of his condition in which he told what seemed to cause him to stutter. In his case it was in the beginning a fear that he would not be able to please the teacher coupled with the racing of ideas which were much more rapid than his ability to express them. After attempting to put him in an attitude in which he would realize that it was unnecessary to be
afraid of anyone, that his teachers were his friends, and that his classmates probably knew less about what he was talking about than he did, he was given the breathing exercises. Upon these he based his improvement, and, while it was not necessary to agree with him, he was allowed to believe this, because it is well for these people to have something tangible upon which they can rely. He never missed his exercises even when he was working on a ranch during the summer.

Besides the exercises he was given some of the phonetic work, particularly the work with sounds upon which he was apt to stutter. Along with this he was given oral reading, short poems, jokes, and anecdotes at first, and later longer stories and poems. In the beginning he read in concert with the writer. Then he was warned that the writer would start with him, but that she might drop out at any time. In a short time he began to read independently. It was necessary to join him only occasionally. When a spasm occurred, the writer always made note of the sound upon which the spasm occurred and in the drill that always followed the reading that sound was emphasized. Then he returned to the paragraph where the spasm occurred and worked upon it until he read it perfectly.

For home practice he was urged to read aloud with the
phonograph playing some simple rhythmic record. Some people suggest that the metronome be used for this sort of drill, but working with the music is much better since it does include monotony of tone or speed. If a child works with a metronome he is apt to say, "I-wish-to-go-to-school-with-you," giving each word the same amount of time. If he works with music he will group his words and phrases naturally and have the same steadying effect from the music that he would have from the metronome, a slowing down of his whole precipitate rush for expression, and much more effective expression. The satisfaction he gains from this ability to read smoothly and fluently gives him confidence in his being able to talk in this same fashion.

A. O. gained such satisfaction from his newly found success that before long he was able to read a story for a class of younger children. This he did with splendid success.

When he returned to school in the fall, he showed no evidence of a relapse which so often occurs when supervision is relaxed over these stutterers. He reported having never failed to do his breathing exercises and having begun his oral reading drills as soon as he returned from the country where he had worked all summer. After an informal conference he decided that he wanted to report weekly. He joined the Senate, the Boys' Debate Club in Butte High School, and took part in the debates, his side winning
several times and A.O. having no difficulty when it was his turn to talk. For tests he was assigned to actual telephone conversations. When he called the writer on the telephone he had no difficulty at all, his voice was pleasant and smooth, his enunciation and articulation perfect. Stories that had a strong emotional appeal were given him to read orally, and once while reading one of these his eyes welled with tears, but he stuttered not at all.

One day he came in and said, "Do you know that I can't tell people my address?" The writer asked, "What is your address?"

He immediately began to stutter. The writer stopped him and told him to write the address on a piece of paper. When this was done, she started saving it in a rather monotonous voice, "3155 Sherman; 3155 Sherman, etc." In a moment he chimed in without a tremor. When it was evident that he was losing his inhibition concerning his address, the teacher dropped it for a time and let him read again. Then just as he was leaving she asked him where he lived. He answered without hesitation. When he returned the following week he was again asked where he lived. He answered, "You know, I wrote it down for you last time."

His natural defense was working. He was unconsciously attempting to evade the responsibility of saying the number
and name of the street.

The teacher replied, "Yes, I know, but I want you to tell me again." He laughed, but began to stutter as soon as he attempted to say it. Again the teacher began the monotonous repetition of the address and he chimed in. Several times during the conference he was asked where he lived and he had no further difficulty. His friend who was with him was told to ask him every day where he lived and to assist him if he had any difficulty with it. When he returned the following week he answered spontaneously where he lived.

Shortly after he returned in the fall, A. O. said that he had discovered a boy in his class who was also a stutterer. He said that he had given the breathing exercises to A. C. and had told him he would ask if he might come for work. While A. C. had also a fear of his failure to express himself, he was far more influenced by his anxiety to rush pell-mell through what he had to say. He was afraid of some people and some situations, but his stutter was accentuated by his inability to make haste slowly. Another difference between these two boys was that while A. O. was very unhappy about his stutter, A. C. was rather indifferent. While such indifference leads to calmness, it was dangerous in that his desire for correction was not intense
enough to make him work for correction as the other boy did. A. C. fulfilled every law of learning in correcting his defect. A. C. had to have the satisfaction of correct utterance greatly intensified to make up for his more or less stoical acceptance of his defect. Also he did not practice as faithfully as A. O.

A. O. continued to report every week or so, but he brought about his own recovery by his persistence, his desire for correct speech, and his cheerful, hopeful, attitude.

From these two cases it may be seen that the correction of a stutter which has already developed lies in building up in the patient a confidence in himself, a faith in his associates, and in breaking down a bad habit as James told us by never allowing it to recur and replacing it with the good habit which should always be the result of the stimulus to speak.

It is seen also that no great amount of psycho-analysis is necessary. Rather the prime necessity is a program of mental hygiene in which the patient is encouraged to become independent, self-respecting, cheerful.

In carrying out such a program it is necessary that the parents should co-operate and to this end it is advisable that the teacher should confer with them giving them
an idea concerning the treatment to which the child will
be subjected and urging a sympathy and understanding in the
family which will eliminate nagging and scolding and occasion­
ally criticism, bickering, and teasing by brothers and
sisters.

It is, no doubt, unnecessary to warn parents and
teachers against permitting other children to laugh at the
stutterer. It seems impossible that this actually occurs
very often, but all stutterers complain that it does occur
to them. Hence, it is necessary to be extremely careful
of the stutterers feeling, never to permit him to believe
that he is being laughed at. It is very good for him to
learn the art of laughing with his companions and to this
end he and his companions should be urged to tell jokes.
A good laugh relieves the tension of a school room
and puts everyone including the stutterer in a frame of
mind that is conducive to the most effectual work.

Oral Reading As An Aid to Speech

The emphasis we have placed upon silent reading in
these last years has added to this problem of oral ex­
pression. Silent reading is just as important as we have
felt it to be, but no teacher should be satisfied with a
reading program which contains only silent reading, no
matter how well it is carried out. Children must have
something to express before they can express anything. We are all familiar with their poverty of ideas. The unimaginative child finds difficulty in reading unless he knows every word he is to read. In the reading test for ten years in the Stanford revision of the Biner-Simon test is the following sentence: "A fire last night burned three houses near the center of the city." Very often a child will read the first four words and balk on the word "burned." The context should tell him what the word is. If one were teaching instead of testing he would no doubt ask the child who hesitates what fire does, and later give a word drill on the words, "burn, burns, burned."

Such a poverty of ideas is familiar to all teachers. Part of their job is the enrichment of the child's experience so that his imagination, his stock of ideas, his associations, are ample to carry him over difficulties similar to this example.

The splendid literature available in the many readers we have at hand is matter for expression ready-made for our children. It is only for the teacher to develop in them a desire to express it and an ability to interpret it.

In order that children may have pleasing, forceful, fluent speech, they must practice speaking. This practice can be very effectively carried on through oral reading.
Each skill, both oral and silent reading, is necessary for the well-rounded development of all students. Neither should be sacrificed for the other. Particularly should the inarticulate, bashful child be encouraged to express himself through the medium of oral reading.

An Oral Reading Lesson should not be considered a time when all the children open books to the same page and the teacher calls, "Next" at the end of each paragraph.

The writer finds that an adaptation of the contract plan works admirably in the teaching of Oral Reading. A certain amount of time each week is allotted to Oral Reading. The teacher and students work out a "contract" or a lesson for each child. This "contract" is a selection which the child will read to his classmates when he has prepared it well enough so that he can read it to his own satisfaction. The auditors are held responsible for their attention to the reader and his story. Using this plan, one very successful teacher has each member of the class write a criticism of the reader upon the completion of his selection. This criticism is limited to one sentence. Children are encouraged to write constructive rather than destructive ones, baring, of course, the goody-goody type. Such sentences as these are received: (a) John chose a good story because we all like to hear about animals. (b) I
could hear Mary better than I could last week.

These criticisms are given to the teacher who selects the ones which she feels will be most helpful to the reader. During a class period she uses these criticisms, amplified by her own, to work out the weaknesses shown in the oral reading.

The advantages of this kind of reading program are many. It is easily motivated because children like to read to their comrades material which everyone in the class is not familiar. It is distinctly socializing procedure developing not only good readers but good listeners. It correlates reading and written language in writing the criticisms. Good judgement is necessary in the selection of stories that will be interesting and entertaining.

Much material that has been used successfully for silent reading may be used again for oral reading. Selections may be cut so that they are brief enough. Anecdotes and bits of conversation may be used. Children may be encouraged to work in small groups occasionally in the dramatization of some bit of conversation. Memorization of parts is not necessary for this sort of portrayal. It is necessary only for the students to be so familiar with the part he is taking that he gives a clear interpretation of it.

In teaching oral reading the reader should be so
familiar with the vocabulary of the selection that there is no hesitation or halting during the reading. This necessitates specific word analyses and drills both in pronunciation and meaning, these drills, obviously, preceding the preparation. Discussion of punctuation calling attention to the fact that it is used to help the reader interpret the author's thoughts is necessary. Such rules as "take a long breath for a period and a short breath for a comma" give young readers only a mechanical means of evaluating punctuation. When they are able to interpret the story, when they have made the story or selection their own, and when they have a desire to share it with the members of their class, they will only be hampered by such rules. Their time will be spent more valuably in reading than in learning rules of how to read.

All the children of the class should participate in an oral reading lesson, but their participation should be within the limits of courtesy. It is not courteous to a reader to have his listeners' hands waving while he is trying to read. It is not courteous for them to supply a word that the reader is not able to pronounce as quickly as some of them. These violations of courtesy are conducive to the development of stutters and other neurotic tendencies in children. The readers are so anxious to beat
their discourteous classmates in the pronunciation of the words that they race pell-mell along, and, when they find out that they are often beaten in the race, they begin to stammer and stutter. All sorts of inhibitions are developed and they learn to dislike oral reading if they are fortunate enough to escape an actual speech defect.

Summary

Oral reading is indispensable in the development of good speech for all children. No teacher can afford to omit it from her program.

Other Devices

The teacher who wishes to develop in her students spontaneous fluent speech should have varied fund of devices for both the motivation and development of good speech. The following devices have been adapted by the writer from various teachers of speech, declamation, and dramatics, and from long experience in the improvement of the speech children ranging from pre-school age to seniors in high school.

A fixed routine is not recommended. Variety is imperative. All children are eager to express themselves and should be encouraged in free self-expression. Such encouragement is possible only in the class room where
friendship is the keynote. Teacher and children must have a mutually helpful attitude toward each other. The shy child expresses himself cheerfully in such an environment, while he becomes more and more shut-in under a more formal drill regime. Fun should be a motivating force for many of the devices here suggested.

23.

**Binning Breathing Exercises**

(Be sure that the standing posture is correct. Open windows.)

(PITCH VOICE AT C ABOVE MIDDLE C FOR ALL EXERCISES. USE PITCH PIPE IF NECESSARY.)

Do each of the following exercises twice:

1. Inhale deeply and exhale.
2. Inhale — stretch — exhale.
3. Inhale — exhale on whispered ah.
4. Inhale — exhale on vocalized ah. — (pitcher as above directed).
5. Inhale — exhale on vocalized ee.
6. Inhale — exhale on vocalized oo.

Do each of the following exercises once:

1. Inhale — exhale on ee — ah, ee — ah, etc. until all breath is expelled.
2. Inhale — exhale on ee — oo, — ee — oo, as above.

23. Received from Dr. R. H. Sylvester in suggestions for speech correction in a course given at the University of Montana.
3. Inhale - exhale on ee - ah - oo, ee - ah - oo, as above.
4. Inhale - exhale on oo - ee - ah, oo - ee - ah, as above.

This breathing should be slow, deep and deliberate. Both inhalation and exhalation should be controlled so that there is no danger of throat irritation from hurried, gasping breathing. The exercises should be given every day as a portion of a speech hygiene program. After they have been memorized they should not take more than three minutes. They should be given briskly and the children's voices should always be pitched high as suggested at beginning of exercises. Always insist that children inhale through their noses.

**Posture**

Slouching posture ruins the possibility of an attractive personal appearance and causes the speaker to develop a distaste for standing before an audience. To assume easily and quickly a correct posture, the stretching exercises are invaluable. Have student stand with feet about three inches apart and pointed almost directly ahead. Stretch arms in a circle to the front, over the head, back as far as possible, and down in position. There should be a considerable effort to this stretch. When the stretch is concluded a good posture should be the result. The head should be well up, chin in, chest up, diaphragm in, the whole body well poised. It should be possible to draw a straight
line from ear to ankle, extending through the shoulder, elbow, hip, and knees. Good posture becomes a habit only when properly motivated and consistently practiced.

**Rhymes**

The Mother Goose Rhymes are a most valuable source of material for diagnosing the type of defect from which a young child is suffering and teaching him the correct pronunciation of these sounds. They are short, most children are already familiar with them when they come to school, and they offer material for expression to a child who often has very little to say. Children seldom tire of saying them over and over and hence they form splendid material for drill which, if given in a more prosaic form, would be very fatiguing.

**Suggested Poems for Memorization**

<table>
<thead>
<tr>
<th>Poem Title</th>
<th>Author</th>
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<tbody>
<tr>
<td>Abon Ben Ahdem</td>
<td>Leigh Hunt</td>
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<tr>
<td>The House By The Side of the Road</td>
<td>Foss</td>
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<td>Trees</td>
<td>Kilmer</td>
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<tr>
<td>Wynken, Blynken and Nod</td>
<td>Field</td>
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<td>The Duel</td>
<td>Field</td>
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<td>Grasshopper Green</td>
<td>Unknown</td>
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<td>The Owl and the Pussy Cat</td>
<td>Stevenson</td>
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<tr>
<td>My Shadow</td>
<td>Lear</td>
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<tr>
<td>In Flanders Field</td>
<td>McRae</td>
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<td>The Grapevine Swing</td>
<td>Peck</td>
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<td>Chartless</td>
<td>Dickinson</td>
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**Suggested Stories for Oral Reading**

<table>
<thead>
<tr>
<th>Story Title</th>
<th>Author</th>
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<tbody>
<tr>
<td>The King Arthur Stories</td>
<td>Mallory</td>
</tr>
<tr>
<td>Evangeline</td>
<td>Longfellow</td>
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<tr>
<td>The Courtship of Miles Standish</td>
<td>Longfellow</td>
</tr>
<tr>
<td>The Headless Horseman of Sleepy Hollow</td>
<td>Irving</td>
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</tbody>
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(The above suggested because of their style, rhythm, and their sustained sentences.)

**Stunts**

**Babbling** by moving the tongue rapidly between the lips from side and also in and out as the baby does when he is experimenting with his first elemental sounds is splendid exercise.

**Rolling the tongue** from the outside to the middle is a stunt which requires a considerable co-ordination. When it is impossible to get the tongue to assume this position, the child should be permitted to use his clean fingers before the mirror to place the tongue in position. After this has been done a few times, he can usually gain enough control of the tongue muscles to make it assume this position unaided.

**Trilling** as done in singing and as is necessary in some languages is a splendid tongue exercise and can profitably be made part of every speech exercise until the students are able to trill perfectly. Carrying the trill into the pronunciation of words in which the letter "r" occurs helps those children who substitute "w" for "r" thus:

- r-r-r- un
- r-r-r- ing
- r-r-r- ed
- r-r-r- est

**Blowing** (wh sounds)

1. Let the class play they are blowing a feather in the
Follow this with the pronunciation of wh words.

Have children blow against their hands so that they can feel their breath.

Holding hand about six inches before the mouth, pronounce "wh" words so that the breath may be felt against the hand.

which
where
what

why
when
while

whistle
whence
what

2. oo sound

Let children play they are the wind blowing through the trees.

Follow with words beginning with wi: way, was, won, etc.

Also with oo words as: loom, soon, loon, too, Sue, true, exaggerating the oo sound.

Counting or reciting the alphabet with expression as if they were an election orator's speech develops in children a consciousness of tone variety.

The Mirror

A mirror is indispensable for the correction of speech defects. It should be fairly large, 16x22 inches at least, of good quality, and well framed so that it can be easily moved from place to place. When a child has difficulty pronouncing a word, making a sound, relaxing his jaws, using his upper lip, the teacher should take the mirror to a corner where the light is good and the other children can not see or be seen and placing it in position so that
both her face and that of the child is visible to the child. Work on the difficult word. The exercise should be given on one specific skill and should be repeated for a short period of time at regular intervals until this skill is acquired. Giving specific directions and having the child imitate are all that is necessary. Letting him work all by himself in front of the mirror after success is apparent will help.

In conjunction with the use of the mirror, the teacher can often get the child to make a difficult sound correctly by having him place his fingers under her chin far back near her throat with his thumb extending upward in front of her lips while she very carefully articulates the sounds. This kinesthetic stimulus often carries over when visual and auditory stimuli fail. By placing her fingers on his throat, in the case of the pronunciation of gutteral sounds, the teacher may also assist the child. Stimulating the base of the tongue with an applicator from the medicine chest will often stimulate the use of the muscles necessary for the pronunciation of gutterals. All this should be done in such a way that the child is neither frightened nor embarrassed.

Habit Forming

When a child has learned how to make a difficult sound or to use some inactive muscle, insist upon his
always following the correct method upon the psychological
principle that the way to break a bad habit is never to per-
mit it to recur and the way to establish a good habit is
through its continual use. Since speech is our greatest
socializing agent, any time spent in making the speech of
children fluent, expressive, pleasant, is well spent.

**Enunciation Exercises**

Play a ball game. The child who gives out the word
is the pitcher, the one on the opposite side of the room
is the catcher. The words must be spoken in a clear
normal voice. Every word which cannot be "caught" counts
against the pitcher. This game may be motivated by
choosing sides and keeping scores. It may be varied by
using simple sentences. Occasionally, if the room is
quiet, the pitcher may whisper his words.

**Pitch**

For overcoming monotony of tone and for good voice
pleasing, the following exercises are of value:

1. |
   |
   |
   |
   |
   |
   |

2. |
   |
   |
   |
   |
   |
   |

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The use of all these devices would be of no value if the technique acquired by their use is not used in the speech of the children. A pianist who runs scales by the hour does so only in order to develop muscle strength and precision of touch that these skills will permit him to play difficult compositions, in many of which no scales as he has practiced them appear. This is not to be interpreted as an argument for the old didactic
training, "the transfer of learning". It is an attempt to put into concrete form the philosophy which Dr. Kilpatrick designates as that of concomitant learning. The Babb- ing exercise in itself would be only silly if it did not teach the child the skill necessary to say "black" instead of "brack". So that it is ridiculous to work up t cut and dried routine of speech correction if demonstrations of correct speech are not given.

Children who have speech defects are seldom chosen for school programs. If occasionally they are chosen, it is for a minor part in which there is little chance for practice under the powerful incentive of public appearance.

The writer has found that this method of a public program is splendid for the correction of all speech defects. Such was a program given with 53 speech defectives at the McKinley School in Butte on May 3, 1932. The children came from several elementary schools and the Butte High School. It included three short playlets in which the majority of the children had an opportunity to say some lines and a few had sufficiently difficult parts to require real dramatic skill. These playlets were "A Visit to Fairyland", "An Incident in the Washington Household", and "The Professor Speaks". There were also several declamations and enough music and dancing to give the program variety.

The whole program went through without a hitch. Many people in the audience were a skeptic as to whether the children had ever had speech defects. It would have easily passed for a rather good school program for which the best talent of the school had been picked. The great difference between this program and one for which the best talent had been chosen lay not in the difference of intellectual levels of the two groups, but in the amount of training necessary to put over a program with a group of speech defectives. Much more time, much more practice with individuals and infinitely more patience are required, but the results are worth all this when children - who might otherwise go through life with queer, twisted, shut-in personalities because of their inability for self-expression - are made articulate. In the program mentioned above, the chairman was A. O., the high school boy mentioned in another chapter, who had been a serious stutterer. At the program he looked like a Viking and spoke with the precision and fluency of a Bryan. The success of that evening supplied the final factor in his learning not to stutter, the satisfaction of speaking with success in public. Speech defective children should be encouraged to take part in school programs, but they should learn their parts early and the utmost care should be taken to have them correct every incorrect utterance before a public appearance is given.
CASES IN THE BUTTE SCHOOLS

Case 1.

A. W. A brilliant boy, twelve years old, in the eighth grade, at Lincoln School in Butte. A. W. never received a mark below two. He was a Boy Scout, took music lessons, ran a "magazine" which he kept up for several years, and was an insatiable reader. His "magazine" was typed out in the office of his father's store, enough copies being made to pass about to the various heads of the families of his relatives. It was in reality a journal of the family.

Sometime after entering school he began to stutter. He was an eager child who rushed pell-mell at all types of expression. Being one of a large family of people who liked to talk and talked in high pitched voices, he often had very keen competition when he attempted to express himself. His first stuttering was commented upon and he was urged not to do it. His mother was deeply embarrassed by it and in spite of an heroic effort to cover up her embarrassment, the boy felt it keenly. Father, mother and boy were emotional. There was at the time the boy was twelve years old a slight conflict between him and his younger brother whom he considered spoiled.

A. W. had some "treatments" from a pseudo-psychologist whose method was somewhat after that of Coué. The boy
showed no improvement and was rather bored with the treatment.

He had a keen interest in the stage, declamation, debate, and extemporaneous speaking. He was deeply desirous of taking part in these activities in High School but was very doubtful of his ability to do so. In a church ceremony about this time he had to recite a creed or prayer alone. His mother in telling of it said: "Nothing in our lives, his and his father's and mine, can ever be worse. It was tragic. He stuttered on every single word."

He had to begin his improvement first by having built up in him a hope - his desire was all too keen - a hope that he could be helped. Quiet conversation soon established a friendly relationship between him and the writer. These conversations were always developed about topics that were of keen interest to him. After the "little visit" as he called it, he and the writer read together beginning at first with rhythmic poetry and going later to prose. Soon it was not necessary for the writer to read with him all of the time. If he seemed to have trouble, she would chime in with him until he had achieved an even flow of words again. The success of the conversations and the reading gave him great confidence in himself and soon he came to his speech lesson with accounts of having made a "keen" report in history before his class at school.
About this time the program spoken of in another chapter of this report was given. In one of the playlets was a part that seemed to fit A. W. perfectly. It was that of a professor with a flowery vocabulary who finally after many efforts made his speech. He was given the part and with the greatest enthusiasm carried it through perfectly. Cast in the play was a girl who also stuttered. One day at rehearsal she gave the peculiar little click to her tongue that marked her stutter. A. W. had never recognized the fact that she had a defect before and teasingly said: "If you click once more, I'll slay you."

The girl wept. The writer called off the rehearsal until the next day and took A. W. rather severely to account for his unkindness. He was deeply repentent and apologized profusely. The next rehearsal went over perfectly, both stutterers seeming to have gained self-confidence from having to face a common crisis. This play on the program was done perfectly, not a word of prompting was necessary and not a hitch occurred, but A. W. was both eager and fearful in anticipation of the next church ceremony in which he had to do his part alone. This was an occasion filled with danger because of the humiliation of the former failure. His mother and he were both encouraged by the writer to believe that he would have no difficulty at this
occasion if he were thoroughly prepared. Again he was successful. The satisfaction of success gave him confidence in his ability to achieve a complete cure, and he went to work with renewed enthusiasm. He read aloud in a room by himself for hours. He never missed a lesson, was indefatigable in practice, and most courageous in trying to express himself. During this time he read aloud to the writer Mallory's "King Arthur", repeating many of the stories several times. His splendid intelligence was his greatest stimulation as he had so much to express. At about this time he entered Butte High School. He was intensely interested in history and entered a class where the socialized recitation was used. This caused him no end of annoyance as answers had to be most rapid. It may have been a help to him in the end as his interest in the subject forced him to participate in spite of his frequent relapse into stuttering. The writer attempted throughout this semester to counteract the effects of over-stimulation due to the keen competition for expression in the history class, by slowing up in every possible way, urging plenty of rest, much oral reading, and much encouragement. The greatest encouragement came at the end of the semester when he made a mark of "1" in history and made the honor roll.
Upon his entrance to high school he entered "The Senate", boys' debating organization. Here he came into close contact with an older boy, A. O., who had been cured of stuttering. The older boy was censor for the Senate and he controlled the boys who might have laughed at or harassed A. W. Hence the Senate was A. W.'s greatest joy. He enjoyed debating and entered each debate with the greatest enthusiasm. His ability for research and his splendid vocabulary made him a valuable member, and with the older boy's sponsorship he carried out a most successful year in debate.

Then at the end of the summer vacation following this year, an accident occurred which for a time seemed to have destroyed all the improvement he had made in the past year and a half. His little brother was playing on the back porch when the railing gave way and he fell about twelve feet, breaking both arms. A. W. witnessed the accident and was crushed with sympathy. When he returned to school, he was stuttering as much as he had at any time since he had come to the writer for help. The long hard pull had to start again, encouragement, sympathy, rebuilding self-confidence, establishing new and pleasant experiences in expression to replace the unpleasant ones. In a few weeks he was able to talk fairly well again and again the Senate gave him a splendid forum.
By spring he was stuttering only occasionally and when the call came for the extemporaneous speaking contest, he wanted to enter. Without permitting him to see her misgivings the writer permitted him to enter and had him practice the extemporaneous type of speaking in the two or three lessons that intervened between entrance and the contest. He was warned that competition was very keen and that he must be prepared to be eliminated. He said that his only motive was the experience he would have and he was utterly surprised when he made the semi-finals. At this point he was eliminated, not because of stuttering, but because in such a large field the competition was so great that a fourteen year old boy had little chance. All this gave him the experience that he needed and built up a degree of confidence in himself that he had never before been able to feel.

Shortly after this he entered the declamatory contest with the same motive, but went down in the preliminary try-outs with a case of complete stage fright. He could not remember after leaving the room a single word that he had said. His only consolation was that even under these circumstances he did not stutter. When he and the writer talked over the affair afterward, she assured him that, since he had got through stage fright without stuttering.
He would never have to worry about stuttering again. They exchanged stories of stage fright, A. W. enjoying them thoroughly, and being able to discuss his own experience in a wholly impersonal manner, making no attempt to justify or rationalize the situation. His attitude was as it had always been: interested, enthusiastic, self-critical.

This current year 1933-1934 he complained soon after school began that he had considerable trouble talking over the telephone, particularly when he called someone. He was assigned the task of calling the writer once a week. The first calls were pretty bad, but the writer always attempted to have a bit of gossip from the newspaper or the radio or just family news to discuss. After a time these calls lost their stiffness and became a pleasure both to A. W. and the teacher. When this point was reached the reason for them ceased, and he stopped calling unless there was a real message to give.

He tried out for the state debate during this first semester and again made the semi-finals. Again he learned a lesson which was invaluable to him. He was pitted against a very capable girl. There had been no other occasions conflicts of a minor nature between them. In the try-out that was to determine who would make the debate team, she annoyed him to the point where he lost his temper and shouted. No
sooner was it over than he was able to criticize his own performance, at first with considerable embarrassment at his lack of noise, but later a bit of healthy amusement crept in when he saw that the girl by her cool planning, had outwitted him and taken from him a debate that he knew he had won. He jokingly said that when he debated against her again, he would be provided with an ice-cap.

Having gone through this long baptism of fire, he again entered the declamation contest. He had some difficulty choosing his declamation, but he finally settled on "Disraeli" by Parker. The play was cut to the right length by the teacher of speech in the high school, and he went to work at it, not in the way most high school Sophomores would begin, but with more the approach of a true artist. He read everything he could find about Disraeli. He dug into "musty old tomes" belonging to his uncle for hints that might help him interpret the man. He had not seen George Arliss as Disraeli, which was no doubt an advantage to him, for he was a great admirer of Arliss and had seen him in most of his other pictures, and at the beginning his Disraeli was very much the Disraeli of Arliss. He was warned against this and defended himself thus: "I have never seen Disraeli, never could see him, or hear him over the radio. I have no picture of him. (i.e. no mental
I only know some of the things he did. But I do know George Arliss and he is the great interpreter of Disraeli, so I can't see why I shouldn't use him for my pattern."

With a degree of earnestness that would have been pathetic if he had failed again he went into the preliminary try-outs. He made the semi-finals and went up for his second try-out the following day and was chosen as one of the ten best from a field of seventy students for the public declamation contest. This was his goal. He will go into this contest again to win, but he is perfectly prepared for defeat. He realizes that he is competing with the best speakers in the high school of 2,300 students and that have the privilege of competing with them is a splendid success, almost incredible for a boy who four years before was almost inarticulate.

The writer believes that the cause of this child's stutter was his inability to express himself in the highly emotional, extremely talkative group in which he found himself. His mother and her sisters were wholly devoted to each other, but they argued loudly over the most trivial matters. This child was so often thwarted by being drowned out of the conversation by sheer numbers that he found himself gasping in a word here or there, and losing
the thread of what he had wanted to say. he attempted to
hold his occasional audience by hesitating words until he
began to stutter. There was no history of shock, fright,
or severe illness. His fear of stuttering again aggravated
the condition, once it was started. A frank discussion of
this whole situation was undertaken with the mother. She
recognized the situation and was a great help to the boy in
correcting his defect.

Case 2 A family, N. B., K. B., and M. B.
N. B. a fourteen year old girl, a freshman in high school.

N. B. entered Washington Junior High School in Butte
in September 1931, having had her elementary schooling in
a small rural school a few miles outside of Butte. She was
in high school only a very short time when she was sent to
the writer for speech correction. She had a very bad lisp,
her sibilant sounds all being given the "th" sound, the
"sh" being given the German pronunciation at the back of
the tongue, "v" also showing the German influence being
sounded as "w", and "r" being often elided. When she first
came she spoke so poorly and made such a bad appearance
that one would almost be convinced that she was feeble-
minded. After a friendly relationship had been established
between her and the writer, clothes were provided so that
she looked like the other girls in school and was not em-
barrassed by her appearance. It took an heroic courage for this child dressed as she was to face all those strange schoolmates. When she got clothes that fitted and were neat and becoming, she seemed a different child.

In correcting her speech defect, the correction of one sound at a time was attempted at first. She was told that her "s" sounds were wrong. It was very difficult for her to sense this. A mirror was used to show her the difference between how it should be said and how she said it. Finally with the mirror in which both she and the writer were looking, by pure imitation, she achieved a good sharp "s-s-s". This was practiced over and over and finally said in words as "see", "sit", "some". No attempt was made during the first lesson to correct this sound in any other than the initial position in the word. Her assignment for that lesson, in addition to the breathing exercises was to bring back a list of words beginning with "s" which she was able to pronounce correctly. In the second lesson her attention was called to the "s" in other positions in the word, to the fact that it often has the sound of "z", and also that the soft "c" is sibilant. Again the mirror was used and again a list of words were required for drill.

Then reading began, the writer usually choosing a short poem and having N. B. underscore every "s", thus
was, before beginning to read. This sort of practice con-
tinued for several weeks while a marked improvement took
place. Then followed work on the "sh", carried on in al-
most the same manner. Finally her attention was called to
the "v" and "r" sounds.

She made a splendid improvement in overcoming the
distortion of sounds, but her voice was poor and her breath-
ing labored due to enlarged tonsils and adenoids. During
the summer vacation one of the welfare organizations of
the city had the tonsils removed and since then her speech
has become almost perfect.

In the program which was given on May 3, 1932 by the
children in the speech class, mentioned elsewhere, N.B.
took the part of the old negro mammy in the Washington
household. Her problem in this part was to assume the
negro dialect. This she did very well giving a very good
characterization of the old negro woman.

The following fall, September 1932, she came to the
writer with the news that her younger sister had entered
high school. When asked if her sister had any trouble with
her speech, N. B. said: "She lisps on her s's, but I
don't know whether there is anything else wrong." N.B.
was told to have her sister, E. B., come to the next
lesson. Indeed she did lisp on her "s" sounds, but there
was very little other latter substitution in her speech. When she was finally taught to make the "s" sound correctly, she could manage to put it into almost all words except where it occurred before another consonant, as "sl", "sw", "sk". She said "shwim", "shlow", "shkate." Her defect was not as bad as N. B.'s, nor was her correction as rapid, perhaps because she was not subjected to the embarrassment which N.B. encountered in her first few weeks in high school.

A younger child in this family, M. B., ten years old, had the worst speech defect of any of the others. She has been coming for lessons since early in the school year, 1933-34, and shows some improvement, but relapses between lessons.

The father is an Alsatian which perhaps accounts for the German influence in their speech. They live in an isolated place and have had little contact with other children except what they have in school. The parents are eager for them to learn but show no ability to teach them. The younger ones need to have their tonsils removed, but there is scarcely enough money in the home to provide food and shelter, and, because they have never called upon the relief organization for these things, it is very difficult to get the surgical aid.
Case 3

H. B., a boy sixteen years old, a junior in Butte High School. (School year 1932-33).

This boy "liked to draw" and believed he had some ability. On entering high school he entered the art class and almost immediately there developed a clash between him and the art teacher. He had had a slight stutter even in grade school, but with his difficulty in the art class his speech defect developed to such an extent that in the classroom it was almost a complete inhibition. He had entered the class in oral English in his Junior year and was about to fail because he could not make a five-minute talk, when his mother brought him to the superintendent who referred the case to the writer.

H. B. at this time was tall, over six feet, very slim, and very shy. After a conference with his mother the writer attempted to get him to converse. In a very short time he was talking quite freely. He was asked what he wished to talk about when he made his five-minute talk. He gave his subject, but said he had not made any preparation for it at all. The time for the talk was but three days away, so he was urged to plan his talk, to get his data, and return to the writer the following day. In order to take away from the conference something that he
believed would be of real help to him, he was given the breathing exercises and told to take them. In fact he was taken through them. He was told that they were no magic formula for the cure of stuttering, that by themselves they were useless, but that they would, if used faithfully, establish a correct habit of deep breathing and for this reason were good for his health as well as giving him a good reserve of air with which to speak.

His outline for his talk when he returned the next day was good and rehearsal began. He gave the talk over and over. Whenever he had any difficulty with a word, the sentence in which the word occurred was rehearsed over and over in concert until fluency seemed to be established, when the teacher dropped out and H. B. repeated it by himself until there was not a vestige of hesitation in his enunciation of that sentence. All these sentences were written on a sheet of paper. When he seemed to be able to make the whole talk without trouble, the teacher gave him the first few words of each sentence and he completed it. Then he gave the whole talk again and was excused for the day with the admonition that he was to do no more worrying about his talk.

The teacher saw the teacher of oral English and they discussed the whole case. The English teacher made the
ordeal of the talk as easy as possible for H. B., calling on him just as soon as the class opened and maintaining perfect quiet while he was talking. He did extremely well and all the anxiety which he had been suffering disappeared.

From this point his attitude was changed. He often relapsed into spells of stuttering, but he never lost his courage again and was always ready to drill himself out of the spell. He did not respond to the oral reading drill as do most stutterers that the writer has encountered, so conversation and reports were given and by the end of a year his spontaneous speech was perfect, but he could not read orally.

Every sort of device was attempted, the one which seemed to work best being reading in concert with phonograph music playing. However, even when this reading was perfectly satisfactory he could not cast these crutches aside. He would immediately relapse into a gasping, hitching type of expression, wholly devoid of rhythm.

Then he began to take shorthand. He enjoyed it from the first and after a time began reading his notes back to the teacher of the class. He noted that his slow reading of his stenographic notes was no more halting than that of his classmates and volunteered on every possible occasion in order to get the practice. At this time in speech cor-
rection most of his practice was being done in concert. One
day the writer noted that M. B. was having less trouble
than usual. So warning him that she would drop out of the
reading often, she took almost no part in it. His reading
was good, smooth, fluent, with the rhythm much improved.
When she commented on it and praised him, he explained the
help he had received from reading also his shorthand notes.
M. B. at the end of his high school course is leaving the
record of a boy of normal intelligence with no failures. He
is still troubled a bit by shyness, does not dance and can
not be induced to learn, but is intensely interested in
all kinds of gymnastic games and is an especially good
basketball player because of his height. Unless some
tragic emotional disturbance takes place, there is every
reason to believe that he will never have a recurrence of
his stuttering. Unlike A. W. he has no desire for the
platform, but if he should at some time need to appear on
some platform, there is no reason why, with a normal amount
of preparation, he could not do so successfully.

Case 4

E. H. is a boy sixteen years old in his sophomore year at
Butte High School. (1931);

One afternoon this bashful inarticulate fellow come
into the writer's office and in halting distorted speech
asked for the lady who made people talk. The first problem was to overcome some of the shyness that he possessed, the second to create in him a confidence in his ability to help himself, and finally give him some standards for correct speech.

In another place the writer has taken issue with the authors of various books on the causes and cures of speech defects. E. H. was a splendid example of why one cannot afford to depend upon such generalizations as this type of literature makes. He had a perfect set of teeth, a beautiful mouth in which the palate was a graceful curve at just the correct distance from the tongue. His throat was in a healthy condition, tonsils normal and never inflamed. He had excellent health. Not satisfied with her own or the school nurse's examination the writer insisted upon his being examined by a throat specialist and a dentist. E. H.'s speech defect could not be attributed to any imperfection of the speech organ. Also he was a boy of better than normal intelligence, that is he would fall into the group of high normals if given an intelligence test. He was not made conscious of his distorted speech until he entered high school and only gradually did it dawn on him that he was not talking correctly. Then the boys in his classes began to "kid" him and with the cruelty of youth
brought home to him his defect with such force that he was left inarticulate, miserable, and, at the time he came to the writer for help, so discouraged that he was ready to give up high school and crawl into a hole of loneliness.

His was a case of dyslalia, extreme distortion and substitution of various sounds. His "s" sounds were lisped, that is pronounced as "th". He pronounced such words as condition as if it were "con-ditch-shun". Added to these and other distortions, his parents were Cornish and he associated with many Cornish people who have a notorious disregard for the letter "h". The word "harm" they pronounce "arm" and "arm" is "harm."

E. H.'s speech was so badly distorted that one could not make a mistake in an attempt to correct it, for almost any change would be an improvement. However, because it seemed necessary for his self-respect to start on something rather difficult, the first attempt was to correct the "con-ditch-shun". "hesitat′shun". error. The mirror was used, the writer showing E. H. that he overused the apparatus that made these sounds, that is, that he had to be deft and gentle with his tongue against his teeth and palate to get the soft "sh" and "th" sounds. He was given the breathing exercises and "babbing" exercises and encouraged to learn many stunts that he could do with
his tongue. His job was learning specific skills which had to replace what had already been learned incorrectly.

Besides this specific learning, E. H. had to build up a confidence and a courage that would increase his self-respect which was at a very low ebb. He thought it was a disgrace to have to come for speech correction and kept it a secret from all the members of his family except his mother.

He was having his lessons for about two months when the public program referred to in other sections was planned, and the writer urged him to participate. After much argument he consented to take up the tickets at the door. That was his great concession. However, before the end of that school year - 1931-32, - he had greatly improved.

He has been a most faithful student. After three years of painstaking work he has been graduated from high school, having completed the Commercial Course and worked off his college requirements. Except for an occasional excessive sibilance in his speech there is nothing about it to distinguish him from any other nineteen-year-old youth. He is happy, full of fun, enjoys his school friends, but never fails to regret his failure to participate in debate, dramatics, or glee club while in high school. During the first year of his speech correction
program. the writer tried to get him to join the Boys' Glee Club, but he was too shy and self-conscious and nothing but force of her superior authority could have made him join. This she would not use. The following year the effects of the depression were seriously felt in his home and he could not have a new suit of clothes. He had outgrown his old suit and from that time on he had to dress in "cords" and jacket. This kept him out of the Glee Club until he had finished high school.

He is a splendid young man who will do well in college if he has an opportunity to attend and this opportunity should be provided for him.

Case 5

N. C. a boy nine years old in the fourth grade.

N. C. did not learn to speak until he was five years old and then no one but his closest associates could understand him. Technically his defect would be termed idioglossia. He called the word "cry". "fry"; "school" was "fool". He came to the writer for speech correction in February, 1934. During the first interview it seemed that he might also be afflicted with a stutter, but this was only the result of the emotional strain under which he was laboring in this new experience. As soon as he became acquainted, no sign of his stutter ever recurred,
and no mention was ever made of it.

He was given a good drill in phonetics which he learned readily. Whenever he saw a sound, he made it correctly. The assumption being that he is visual minded, and his visual imagery must be used to correct his defect. He could read any word correctly, but unless he had this visual association he would not carry it over in conversation.

When school closed in May, 1934, his mother came to the writer and a summer program for his speech improvement was planned. When school opens in the fall, it is probable that he will have relapsed to some extent, but, because of his good intelligence and his keen desire to correct his speech, he will have normal speech in a reasonably short time unless some shock or illness intervenes.
Summary

1. The literature on speech correction is limited, and there is a lack of uniformity in terminology which makes it confusing. There is one type of this literature that can be said to add little to the subject. It is verbose and unscientific. Periodic literature in such magazines as "Hygeia" and "Parents" is specific and of value to both teachers and parents. The best work in this field is "Speech Training for Children". by Margaret and Smiley Blanton.

2. A study was undertaken by the writer which was carried on throughout the summer sessions of 1932, 1933, 1934 at the University of Montana. It was an attempt to learn whether or not there was any relation between speech defect and personality traits. The Bernreuter Personality Inventory was used, the B4-D key scoring Dominance-Submission being used for this study. The writer devised a speech test by adapting Gray's Oral Reading Test to the needs of the study. There were 144 cases measured by the writer by these scales. The cases were students at the University, juniors and seniors in the Missoula County High School, and speech defective students from the Butte High School. No noteworthy correlations were found between speech and dominance - submission except in the case of the twelve stutterers in the study where there was a -.55 correlation.

25. Blanton, Margaret and Smiley. op. cit.
This suggests that because of the thwarting which accompanies the stutterers' efforts to speak, he becomes highly dominant. This defense mechanism is his mode of accommodating himself to a life which might otherwise be too difficult for him.

3. The latter part of the thesis is devoted to speech defects in general with some methods and devices for the improvement of the speech of all children and the correction of defects in those who have already developed them. The writer has aimed to put emphasis upon the policy of prevention of defects so that they will not develop to such a degree as to cause correction to be questionable. Any of the devices suggested can be used very profitably with children of normal speech.

The following points as aids for correction may be emphasized in this summary:

(1) Children learn to talk by talking, therefore they should have plenty of opportunity for speech in the school room.

(2) Teachers should be friendly, quiet, and interested and see to it that even the quiet child has his opportunity to talk.

(3) Speech correction, unless the central nervous system is involved or unless there is a physical defect
such as cleft palate, is largely a matter of re-education. This is true of stutterers as well as lispers. However, methods of correction are different. With the stutterer it is necessary to establish in him the faith in his being able to carry on fluently. This is done by having him read in concert with the teacher and by himself with some rhythmic device, preferably the phonograph. The lisper should be taught first to make correctly the sound he distorts and then adopt it into his speech habit. A mirror is of value in teaching the child through imitation how to make a sound correctly.

(4) The child should have a good physical background for correct speech as he should for success in every other skill. Therefore enlarged tonsils and adenoids should be removed and the child should have plenty of rest, fresh air, and wholesome food.

(5) Voice quality is a factor in pleasing speech. Therefore exercises in pitch are given in this thesis.

(6) No program is of value unless it can be made to function. Hence it is recommended that speech defective children should be trained in the arts of declamation and dramatics to the point where their performance reaches perfection and then they should give their performance to a selected, appreciative audience.
4. The thesis continues with five cases of speech defect who have been in the writer's speech correction class in Butte. The writer believes that reporting cases is a valuable means of passing on to other members of the profession the successes and failures of its members. In this way a valuable literature will eventually be evolved. This does not mean that what has been done in any case was the best procedure. It does mean, however, that by being able to criticize the methods of one's colleagues one can develop a method that is an improvement over the one reported. For this reason the writer reported two cases that have not entirely responded to the corrective program, and one that is so new that there is a question concerning the child's ultimate success.
BIBLIOGRAPHY


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