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To the Graduate Council:

I am submitting herewith a thesis written by Jess M. Smith entitled "A Study of the Omission of Necessary Words in the Written Composition of Deaf Children." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Special Education.

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A STUDY OF THE OMISSION OF NECESSARY WORDS IN THE
WRITTEN COMPOSITION OF DEAF CHILDREN

A THESIS

Submitted to
The Graduate Council
of
The University of Tennessee
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Jess M. Smith
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CHAPTER I

INTRODUCTION

Despite great advances in the education of the deaf during the past two centuries, the commanding problem is still the acquisition of language. Down through the years scores of methods have been devised and earnestly advocated for teaching language to the deaf--as a study by Nelson¹ so comprehensively reveals. The much desired results have yet to be achieved.

In this field of special education there have been, and will continue to be, hard fought battles over methods, systems, and pet theories. Fortunately, however, there is practically unanimous agreement on the barrier of language in the education of the deaf child. The following passage was written by one of the strongest advocates of teaching speech and speech reading:

WHAT IS THE DEAF CHILD'S GREATEST NEED? Almost anyone who is asked this question, if he has had no contact with the education of the deaf, will reply immediately, "Speech." That answer is wrong. The correct reply is, "Language." Speech and language are by no means the same thing, and language is by far the most important of the two.²

¹Myrthel S. Nelson, "The Evolutionary Process of Methods of Teaching Language to the Deaf with a Survey of the Methods Now Employed," American Annals of the Deaf, 94:230-294; 354-396; 491-511, May, September, November 1949.

²Josephine Timberlake (editorial), Volta Review, 52: 156, April 1950.

In his preface to Lassman's Language for the Pre-School Deaf Child, Silverman stated, "Language is the key-stone upon which the successful education of the deaf ultimately rests."³ Another educator has commented that all academic progress is governed by mastery of English, as to a considerable degree are the deaf person's social and economic progress after he leaves school.⁴

Language Concepts

As pointed out by Groff,⁵ the term "Language" has a meaning to teachers of the deaf which is narrower and more specific than the concept entertained by psychologists. To the former "language" implies the correct use of English, both spoken and written--the child's language ability is the degree to which he can express himself in good English. To the psychologist "language" covers much more than mere grammatical forms and their usage. He considers highly important the sensori-motor and associative processes involved. There is certainly food for thought in the following criticism:

³Grace Harris Lassman, Language for the Preschool Deaf Child (New York: Grune & Stratton, 1950), p. ix.

⁴Tobias Brill, "Language in the Advanced Grades," Volta Review, 48:680, November 1946.

⁵Marne L. Groff, "The Psychology of Language with Special Reference to the Deaf," American Annals of the Deaf, 80:172, March 1935.

If the teachers of the deaf would enlarge their conception of "language" to include the psychologist's viewpoint, in all probability a great many of their burdens might be lifted. If they would think of the acquisition of language in terms of neural processes instead of entirely a matter of "who" and "how" questions, a great deal of light might be shed on the need for constant repetitions, superiority of one method of presenting material over another, et cetera.⁶

The development of human language is, itself, the development of the human mind. It follows that the education of the deaf becomes significantly the acquisition of language.

Function of Language

It might be argued that language is not absolutely necessary for human survival, but philologists present a convincing case in stating that it is lingual manipulation that distinguishes man from animals. Language serves a definite purpose.

Language, since its primary use is the interchange of thoughts between social beings, is imperative to individuals as a means of communication. Without language it would be impossible for one to think with accuracy or to reason with rationality, except in a hazy manner and only to a limited degree.⁷

The popular belief that there can be no thought without language is incorrect. It is possible to think in terms

⁶Ibid., p. 173.

⁷Nelson, op. cit., p. 230.

of concrete pictures instead of words.⁸ This is particularly true of the deaf child previous to his acquisition of language. It is necessary to assume that man thinks first and then expresses his thoughts in words by some sort of translation once language is utilized.

Mental imagery in general was found to be different from individual to individual. Images may be (1) visual, (2) auditory, or (3) kinaesthetic. The type of memory image that dominates in an individual has considerable influence upon the effectiveness of the man and modifies both the capacity for language and his ability in certain professions.⁹ In one study it was found that 90% of the subjects made most use of visual imagery.¹⁰

Acquisition of Language

The normal child's acquisition of speech and language follows a fairly well-defined pattern. In order come: (1) the birth cry, (2) cries that express needs and desires, (3) laughing, (4) babbling--vowel sounds first, (5) understanding of spoken language, (6) imitation of speech, (7) invented words, (8) speech to achieve something, (9) one-word

⁸Walter B. Pillsbury and Clarence L. Meador, The Psychology of Language (New York: D. Appleton and Company, 1928), p. 4.

⁹Pillsbury and Meador, op. cit., pp. 100-101.

¹⁰Ibid., p. 101.

sentences--nouns and verbs first; prepositions, pronouns, conjunctions, etc., much later, (10) sentences and phrases in haphazard order, (11) correct sentences.¹¹ The deaf child's progress halts somewhere between the third and fourth stages, to remain at a standstill usually until he is exposed to formal education. It is during the first years of life that the mother-tongue can be most favorably learned,¹² a time during which the deaf child is at a marked disadvantage.

Hearing children automatically learn the names of objects and actions auditorially, that is, by hearing them spoken over and over. Gradually the association of words with names of objects and actions becomes symbolized in their minds, so that the words they hear come to have definite connections with the real objects or actions. After much repetition, attempts are made by the children to imitate what they hear until they are finally able to reproduce the language in expression of their own thoughts and emotions. Concrete and abstract terms which they hear through constant repetition cling to their memories by a sort of natural affinity, and a language pattern is automatically absorbed.¹³

The congenitally deaf, as well as those who become deaf before speech and language patterns are established, must depend entirely upon visual and tactual stimuli and to some extent upon residual hearing. There are no auditory sensations to serve as associative links between the visual

¹¹G. Seth and D. Guthrie, Speech in Childhood, as quoted by Lassman, op. cit., p. 46.

¹²Otto Jespersen, Language: Its Nature, Development, and Origin (London: George Allen & Unwin, Ltd., 1922), p. 141.

¹³Nelson, op. cit., p. 231.

image of the symbol and its meaning. The visual word picture must pass directly into meaning.¹⁴ Likewise the inner speech pattern conducive to written language is absent.

The deaf child may be of normal intelligence, but his thoughts are suppressed by the lack of a linguistic form of expression. In a similar manner he is unable to share with others the store of common thoughts. His development along these lines is arrested. Ingvarsson asserts that:

The hearing child has acquired a vocabulary of 2000-3000 words, together with a large number of ready-made phrases from colloquial language, by the time he begins his school education. The untrained deaf child's linguistic development at this stage (age seven) can best be compared with that of a hearing child at the age of one year.¹⁵

The Language Handicap of the Deaf

For a long time most psychologists held to the theory "that deafness or whatever caused the deafness in some way interfered with normal development of other parts of the nervous system."¹⁶ They believed the resulting retardation could never be overcome. The development of performance tests and

¹⁴Pillsbury and Meader, op. cit., pp. 9-10.

¹⁵Ivar M. Ingvarsson, "Language Teaching in Schools for the Deaf: Psychological Aspects," American Annals of the Deaf, 97:272, March 1952.

¹⁶Hallowell Davis (ed.), Hearing and Deafness: A Guide for Laymen (New York: Murray Hill Books, Inc., 1947), pp. 374-375.

non-verbal tests of intelligence disproved this belief. An educational retardation of from two to five years is shown by achievement tests. Retardation of the deaf child is not so great in some subject matter fields as in others. This retardation, moreover, is due naturally to the language handicap.

A beginning deaf child has no apprehension of correct word order in a sentence. In expressing his wants and thoughts he gives a mass of ideational or pantomimic gestures with no logical sequence. Upon coming to school he has no vocabulary. Oftentimes, he does not know his name, or realize that he has one. Hearing children, from babyhood, hear thought expressed in correct order so often that the pattern becomes instilled in them automatically. Their sole criteria for judging logical sequence is whether or not it sounds right, whereas deaf children have no criteria.¹⁷

Quite often the trials of the deaf child in learning his native English language are likened to the difficulties involved in learning a foreign language. Actually the deaf child's struggles are beyond comparison because he has no language at hand to use in translation as does one studying a different tongue. Word associations must be learned very painstakingly at what seems to be an exasperatingly slow pace. Teachers of the deaf have learned the hard way that it is easier to teach speech from scratch than to teach and develop the deaf child's language.

¹⁷Nelson, op. cit., p. 231.

CHAPTER II

THE PROBLEM AND ITS IMPLICATIONS

Characteristic of the language handicap of the deaf child are numerous specific types of errors. Some of these disabilities occur also in the language of the normal child, but here the "correction" process tends to eliminate such mistakes as others (1) call attention to mutilated words not understood or (2) make fun of language which "does not sound right."¹ The deaf child lacks intuitive evaluation and self-censorship where language is involved.

In a language spoken fluently no thought is required for a phrase once started. The words fuse by association into larger groups, sentences, or phrases, and these even may associate into groups . . . subject to the censorship of past experience as to both matter and form.²

By censorship is meant awareness that some definite rule of grammar has been violated or that good practice is not being followed. This appraisal comes in the form of the frequent vocalization of language subconsciously before it is uttered or written to see if it "sounds right."

¹Otto Jespersen, Language: Its Nature, Development, and Origin (London: George Allen & Unwin, Ltd., 1922), p.144.

²Walter B. Pillsbury and Clarence L. Meador, The Psychology of Language (New York: D.Appleton and Company, 1928), p. 202.

The Problem

1. Statement of the problem. The purposes of this study are: (1) the collection of original compositions and other forms of written language of deaf children; (2) the tabulation of errors in the form of the omission of necessary words; (3) the classification of these errors according to parts of speech; (4) ascertaining the occurrence of these omissions according to onset of deafness--congenital, before age of five, or after age of five; (5) interpretation of these omissions as to possible causes; and (6) recommendations for instructional procedures toward reduction of this type of language error. This study is mainly applicable to Tennessee School for the Deaf.

2. Value of such a study. The results of this study should have some implications for the writer and perhaps other language instructors as to the need of greater attention to certain parts of speech due to their frequent omission in the written language of deaf children. This study may show lack of emphasis on correctional measures. It will point out the need of research on specific errors rather than too much stress on methods or systems of teaching language.

3. Difficulties in completing the study. Very few investigations have been made and reported concerning the specific errors made by deaf children in their written language. For this reason there is little basis for comparison of findings. Since this study concerns only the written

language of deaf children in the advanced grades of one school compared with that of preparatory students at Gallaudet College, there is a marked possibility that the findings would not hold true for all schools for the deaf due to the differences in instructional procedures. In tabulation of the omission of necessary words it is often difficult to decide what words are absolutely required to give clarity and meaning to sentences. Too often the correction of other types of errors in the identical sentence produces an almost completely rewritten sentence.

Omission of Necessary Words

Jespersen asserts that all normal children at first put important words together without connective words. The first sentences are "echoisms"--mutilated forms of what has been heard--characterized by haphazard word order.³

When the deaf child begins to use sentences, he, like the hearing child, uses nouns or verbs or both and usually omits prepositions, conjunctions, and pronouns. To any child, the important parts of a sentence are those words which indicate things and people and the actions revolving about both.⁴

Debusk points out that errors which persist are the result of social imitation and are fixed in the child's

³Jespersen, op. cit., pp. 135-138.

⁴Grace Harris Lassman, Language for the Preschool Deaf Child (New York: Grune & Stratton, 1950), p. 54.

speech long before he enters school.⁵ In a like manner the deaf child's persistent omission of words might be the same sort of habit after he enters school. It is obvious that his thinking in terms of word units instead of in phrases and more complete units contributes to the omission of necessary words.

According to modern linguistic psychologists, the phrase is the primary linguistic unit in the spoken language. Attaching meaning to individual words is a characteristic only of the secondary language--the written form in most modern languages.⁶

Hearing students continue to omit necessary words all through their school years. One college English handbook for freshmen refers to the omission of necessary words as being the eighth most common error in the average student theme.⁷

Previous Work along These Lines

As enumerated among the difficulties in completing this study, there have been few, if any, investigations relating to the omission of necessary words by deaf children. The American Annals of the Deaf and the Volta Review, two period-

⁵Burchard W. DeBusk, The Persistence of Language Errors Among School Children (Eugene: University of Oregon Press, 1930), Vol. 2, No. 4 (Educational Series), p. 89.

⁶Ivar M. Ingvarsson, "Language Teaching in Schools for the Deaf: Psychological Aspects," American Annals of the Deaf, 97:276, March 1952.

⁷John C. Hodges, Harbrace Handbook of English (New York: Harcourt, Brace and Company, 1941), p. 259 (footnote).

icals which faithfully report new developments, contain some pertinent discussions on the use of the articles but call little or no attention to their omission.

In 1936 an analysis of errors in the written compositions of deaf children was reported by Thompson⁸ in summary form. This investigation used 16,000 compositions by 800 deaf children in 10 schools for the deaf and was made possible through a Federal Emergency Relief Administration grant. The 800 deaf children in this study were grouped according to the onset and degree of deafness, and a tabulation was made of the incidence of specific errors per 1000 running words as indicated in Table I. Omission of articles and omission of necessary words were scored separately, but the omission of necessary words was the leading single type of error for all except the group in which the onset of deafness was after the age of five.

An investigation such as the one reported by Thompson would be beyond the scope of a single individual. The possible benefits of an analysis of the specific errors are beyond contemplation, but as yet this field of research has not been explored.

⁸William H. Thompson, "An analysis of Errors in Written Composition by Deaf Children," American Annals of the Deaf, 81:95-99, March 1936

TABLE I

AVERAGE NUMBER OF NECESSARY WORDS OMITTED BY DEAF
CHILDREN PER 1000 WORDS^a

Omissions	Congenital		Deaf before five		Deaf after five	
	Total	Partial	Total	Partial	Total	Partial
Articles	3	5	3	3	6	2
Other Words	16	25	13	17	10	11
Total						
Omissions	19	30	16	20	16	13

^aSource: William H. Thompson, "An Analysis of Errors in Written Composition by Deaf Children," American Annals of the Deaf, 81:99, March 1936 (abridged table).

Organization of Succeeding Chapters

Subsequent chapters of this study will consider phases of the problem as follows:

Chapter III

The nature of the written compositions used in this study will be discussed. The procedures of ascertaining the omitted necessary words and their resulting classification according to parts of speech will be outlined.

Chapter IV

In this chapter the findings will be detailed with appropriate tables. Explanations and comment will be made to clarify the more significant results.

Chapter V

Conclusions and recommendations will be made with reference to existing methods used in correcting written language. Suggestions will also be made regarding teaching methods.

Chapter VI

The final chapter will be in the nature of a summary of the study in all its aspects--purpose, procedures, findings, conclusions, and recommendations.

CHAPTER III

PROCEDURE OF THE STUDY

To determine the nature of necessary words omitted by deaf students a total of 501 specimens of written compositions by 55 students in the advanced classes (grades six through ten) at Tennessee School for the Deaf was studied. These items, representing efforts at various times during the 1950-51 and 1951-52 school years, included letters to parents written on a bi-weekly basis in the classrooms, book reports, daily journals, friendly notes, and themes assigned as a part of daily classwork. While the majority of these papers were collected after the students had seen the corrections, a large number of specimens were found in term examinations. The students had no knowledge of the ultimate use of their papers in this study.

In order to provide some basis of comparison of the nature of omitted words on a qualitative basis, one hundred ninety-three impromptu themes written by 55 students of the 1951-52 preparatory class at Gallaudet College were obtained. These students are products of schools scattered all over the United States and include a few representatives from foreign countries. Since their admission to college was based upon competitive examinations, they can be considered the best deaf students as far as language ability is concerned. Their

omissions of necessary words, while fewer in proportion, provide comparison as to the types of errors.

Classification of Students

Thompson's tabulation of errors made by deaf children in their written composition made classifications as to the nature and onset of deafness as follows: (1) Congenital, (2) Adventitious--before five years of age, and (3) Adventitious--after five years of age. He further determined whether deafness was total or partial in each classification. Table I, an abridgement of Thompson's summary, takes only the average number of errors made by totally and partially deaf children.

Classification of TSD Students

For the purposes of this study the 55 students in the advanced classes at Tennessee School for the Deaf were grouped into three classifications: (1) Congenital, (2) Adventitious--before five, and (3) Adventitious--after five. Since few of the children involved possess usable hearing, there was no division into totally or partially deaf groups. This information was obtained from individual records on file in the principal's office as to nature and onset of deafness. It is necessary to state here that it is extremely difficult to determine the line of demarcation between deafness at birth and deafness which occurs during infancy. Of the 55 students whose specimens of compositions are included in this study,

27 are congenitally deaf, 18 became deaf before the age of five years, and the remaining 10 became deaf after the age of five. Those few students possessing usable hearing or those few who have public school experience are not considered above the average as to language ability.

Classification of Gallaudet Students

A somewhat different classification was necessary for the Gallaudet College preparatory students. On basis of information marked on their papers these 55 individuals are: (1) Congenitally deaf, (2) Adventitiously deaf--without regard to age of onset, and (3) Hard-of-hearing. The breakdown was 20-15-20 students, respectively. Gallaudet College's large number of students with usable hearing includes many who have never attended a school for the deaf, as well as several who lost their hearing at a comparatively late stage of their education. A Japanese and a Hindu are included, and their omission of necessary words stems from the difficulties involved in the transition from their native language to English in addition to their deafness.

Classification of Omitted Words

In tabulating the omission of necessary words it was necessary to classify the errors according to grammatical rules and usage. Because interjections are almost never found in the written compositions of deaf children, and

because they are not often necessary for the purposes of clarity and good usage the eight parts of speech were reduced to seven--nouns, pronouns, verbs, adverbs, adjectives, prepositions and conjunctions.

Articles, held to be a special class of adjectives in the strictest grammatical sense, were tabulated as a separate category of omissions due to their preponderance. Definite and indefinite articles were listed separately although they are considered as one item for most phases of this study.

In cases where there was reason to question the assignment of errors, Longman's English Grammar was used as the authority.

Samples of each type of omission are given in the appendix.

Nouns

No distinction was made between common and proper nouns. An omission was charged when part of a proper name was left out, which proved to be a frequent type of error. Nouns were also tabulated as parts of missing prepositional phrases.

Pronouns

There was no especial problem involved in consideration of the necessity of inserting pronouns.

Verbs

Omission of Auxiliary verbs was a major obstacle in listing errors. It was arbitrarily decided to consider as an

omission the failure to write the complete verb phrases. This was particularly so in the instances where have, has, and had were called for to make sentences conform to the perfect tense.

Adverbs

Omission of adverbs was not charged unless it was absolutely necessary to clarify sentences by giving the time, place, or reason. Context was the determining factor in listing borderline errors.

Adjectives

This study considered only necessary words, and adjectives usually are components of expressive and specific language which are used little by deaf children. As in the case of adverbs, the nature of the context was the governing factor in charging omission of adjectives.

Prepositions

Prepositions were omitted either as (1) the preliminary word showing relationship or (2) part of a missing prepositional phrase. If one word of a compound preposition was omitted, it was scored as an error.

Conjunctions

Conjunctions were omitted before the last item of a series, where necessary to avoid run-on sentences, and where called for to introduce coordinate or subordinate clauses.

Articles

Except to point out that the omission of articles often occurred after the first noun of a series, it was not difficult to classify this type of error.

Treatment of Infinitives

Omitted infinitives were classified as nouns, adverbs, or adjectives, according to their functional usage as parts of sentences. This was the case regardless of the two possible omissions--lack of the prefacing to or lack of the entire infinitive phrase.

Method of Tabulation

A separate tabulation was made of omissions for each classification of deafness, making three score sheets for the advanced students at Tennessee School for the Deaf as well as three tallies for the Gallaudet College preparatory class. All tabulations were cross-checked for accuracy--totals for all omissions were checked against specific omissions in sub-groups and whole groups.

Most of the specimens of compositions involved had already been corrected and attention called to omitted words either by insertions or use of carets to indicate lack of essential words or phrases. However, all papers were read through again and other omissions thus found made this procedure worthwhile.

CHAPTER IV

FINDINGS

The intent of this study was to analyze the omission of necessary words on a qualitative rather than on a quantitative basis. Accordingly each type of omission was studied in light of its relationship to the total omissions. There was no other means available for comparing the advanced students at Tennessee School for the Deaf with those in the preparatory class at Gallaudet College.

Omissions by TSD Students

From the 501 specimens of compositions written by 55 students in the advanced classes at Tennessee School for the Deaf a total of 2654 omissions were tabulated as shown in Table II. Fully one-fourth (25.3%) of these necessary words omitted were articles. Following in rank were verbs (17.7%), prepositions (13.6%), nouns (13.0%), pronouns (10.5%), adverbs (9.2%), adjectives (5.5%), and conjunctions (5.2%).

Omission of necessary articles was so pronounced that inclusion of additional specimens of compositions could hardly be expected to change the top ranking. Verbs ranked so high as the second leading type of error as also to be unquestioned. A virtual tie between prepositions and nouns for third place points to the possibility that these types of omissions are

TABLE II

OMISSION OF NECESSARY WORDS BY STUDENTS
IN ADVANCED CLASSES AT TSD

Type of Omission	Number of Omissions	Per cent of Omissions
Articles	672	25.3
Verbs	469	17.7
Prepositions	360	13.6
Nouns	344	13.0
Pronouns	280	10.5
Adverbs	245	9.2
Adjectives	145	5.5
Conjunctions	139	5.2
Totals	2654	100.0

of equal importance. Likewise there is not much difference between the rankings of pronouns and adverbs. Adjectives and conjunctions, as the last two items, could easily be reversed.

Omissions by Congenitally Deaf Students

Of the 55 students whose compositions were studied, nearly half (27) were classified as being congenitally deaf. Their omissions so greatly affected the totals for the entire group that it was not surprising to find that their errors had the same ranking and approximately the same percentages as for the whole group. Again the omissions were (1) articles (26.4%), (2) verbs (17.4%), (3) prepositions (14.4%), (4) nouns (13.0%), (5) pronouns (10.0%), (6) adverbs (9.4%), (7) adjectives (4.9%), and (8) conjunctions (4.5%).

Table III shows the tabulation of omissions by these students. Again the rankings are not so clear cut following articles and verbs. The congenitally deaf students made 1506 errors out of 2654 omissions for the entire group.

Reference again to Table I (summary of Thompson's study) shows that the congenitally deaf had a much higher rate of omissions per 1000 running words of written composition than the other two groups--those adventitiously deaf before five and after five.

Omissions by Adventitiously Deaf before Five

Eighteen out of the 55 students were classified as being

TABLE III

OMISSION OF NECESSARY WORDS BY CONGENITALLY DEAF
STUDENTS IN ADVANCED CLASSES AT TSD

Type of Omission	Number of Omissions	Per cent of Omissions
Articles	398	26.4
Verbs	262	17.4
Prepositions	217	14.4
Nouns	195	13.0
Pronouns	150	10.0
Adverbs	142	9.4
Adjectives	74	4.9
Conjunctions	68	4.5
Totals	1506	100.0

adventitiously deaf before the age of five. The 831 omissions noted in their compositions again showed the same rankings as for the entire group. This time, however, there was a wider difference between successive rankings. The big three were (1) articles--25.8%, (2) verbs--17.5%, and (3) prepositions--13.6%. These per cents are almost duplicates of those for the entire group. There is not much difference between the rankings of nouns and pronouns as a glance at Table IV shows, the per cents being 11.9 and 11.0, respectively. Adverbs made up 9.1% of the omissions; adjectives were seventh with 6.1%; and conjunctions were last with 5.0%.

These figures indicate that students who become deaf before the age of five tend to make the same kinds of omissions as those congenitally deaf. Together these two groups are by far the majority of the students found in any school for the deaf, and it is their omissions which must rate the greatest consideration in language work.

Omissions by Adventitiously Deaf after Five

Deaf children who acquired speech to some degree before becoming adventitiously deaf after the age of five presented an entirely different ranking of omissions. The differences in rankings may be misleading due to the small number of students and compositions used in this study. Only ten of the 55 students are in this classification.

There is a difference of less than one per cent in the

TABLE IV

OMISSION OF NECESSARY WORDS BY ADVENTITIOUSLY DEAF
(BEFORE FIVE) STUDENTS IN ADVANCED CLASSES AT TSD

Type of Omission	Number of Omissions	Per cent of Omissions
Articles	214	25.8
Verbs	145	17.5
Prepositions	116	13.6
Nouns	99	11.9
Pronouns	91	11.0
Adverbs	75	9.1
Adjectives	50	6.1
Conjunctions	41	5.0
Totals	831	100.0

the omission of verbs (19.6%) and articles (18.9%), but these again produced most of the errors. Prepositions dropped all the way to seventh place as a type of omission. Conjunctions tended to be left out to a greater extent, ranking fifth. Table V shows that nouns and pronouns were third and fourth respectively, and that adverbs and adjectives were not often omitted.

Rankings of the eight types of omissions made by the entire group compared with those made by the group adventitiously deaf after five showed a very low positive correlation --only .60 by the Spearman formula. The data for this group is found in Table V.

Specific Findings for the Entire Group

Articles. The definite article the was omitted more often than the indefinite forms a and an. Omission of the articles at the beginning of sentences was negligible. The most frequent omission of these necessary prefixes was after the first noun in a series and in cases where adjectives or adverbs preceded nouns. It is worth mentioning that the definite article the was quite often absent when necessary to identify proper nouns.

Verbs. Omission of the auxiliaries was most common although verbs and verb phrases were frequently missing from both coordinate and subordinate clauses. In the case of the auxiliary verbs, will and the perfect tense prefixes of has,

TABLE V

OMISSION OF NECESSARY WORDS BY ADVENTITIOUSLY DEAF
(AFTER FIVE) STUDENTS IN ADVANCED CLASSES AT TSD

Type of Omission	Number of Omissions	Per cent of Omissions
Verbs	62	19.6
Articles	60	18.9
Nouns	50	15.8
Pronouns	39	12.3
Conjunctions	30	9.5
Adverbs	28	8.8
Prepositions	27	8.5
Adjectives	21	6.6
Totals	317	100.0

have, and had were conspicuously omitted.

Prepositions. The single words constituting prepositions were left out more often than complete prepositional phrases. Use of compound prepositions was too rare as to result in omissions of one of the words. To, at, in, and with were noticeable omissions.

Nouns. Proper nouns were more often omitted in part than as wholes. Nouns were often missing where needed to make the subjects of clauses clear. Another form of omission was the failure to use nouns following proper adjectives--for example, team in the phrase "the Central High School team."

Pronouns. These omissions followed several patterns, one the most frequent of which was as the missing subject of sentences in colloquial form--"(I) Will see you soon."--being typical. Pronouns were omitted often in the objective case. Me was often left out as an indirect object.

Adverbs. Words denoting time and place were omitted most often. There, as an expletive adverb, tends to be left out by deaf children. The negative form not is often missing from sentences where the meaning clearly calls for its inclusion. Again and soon also figured prominently as omissions.

Adjectives. Lack of demonstrative adjectives and the omission of the limiting adjective some were common errors. Omission of this part of speech ranked low because, while the use of adjectives would have been in the interests of

TABLE VI

OMISSION OF NECESSARY WORDS BY STUDENTS IN THE
PREPARATORY CLASS AT GALLAUDET COLLEGE

Type of Omission	Number of Omissions	Per cent of Omissions
Articles	92	19.9
Prepositions	77	16.7
Pronouns	75	16.2
Verbs	70	15.3
Nouns	49	10.6
Adverbs	36	7.8
Conjunctions	35	7.6
Adjectives	27	5.9
Totals	461	100.0

clarity and better expression, these words could not be construed as being absolutely necessary.

Conjunctions. While conjunctions were sometimes missing where necessary to introduce subordinate clauses, the two forms and and or were omitted on numerous occasions where they should have preceded the last items of series.

Omissions by Gallaudet Preparatory Students

Articles were the most frequent type of omission by the Gallaudet College preparatory class students in their impromptu themes, the topics of which were usually quotations from literature. Of the 461 omissions of necessary words tabulated from 193 compositions by 55 students, 19.9 per cent or one-fifth were articles.

Prepositions, pronouns, and verbs came next in the order named, but they were closely grouped with 16.7%, 16.2%, and 15.3% of the omissions, respectively. Next came nouns constituting 10.6% of the omissions.

As Table VI shows, there was almost no difference in the lack of adverbs (7.8%) and conjunctions (7.6%). Last in rank were adjectives (5.9%).

Omissions by Congenitally Deaf Students

Writing on the same topics as the other 35 students in the preparatory class, the twenty students classified as congenitally deaf made well over half the errors of omission

TABLE VII

OMISSION OF NECESSARY WORDS BY CONGENITALLY DEAF STUDENTS
IN THE PREPARATORY CLASS AT GALLAUDET COLLEGE

Type of Omission	Number of Omissions	Per cent of Omissions
Prepositions	46	19.7
Verbs	42	18.0
Articles	41	17.5
Pronouns	33	14.1
Nouns	23	9.8
Conjunctions	17	7.3
Adjectives	16	6.8
Adverbs	16	6.8
Totals	234	100.0

of the entire group. Prepositions came first with 19.7 per cent of the omissions, closely followed by verbs (18.0%) and articles (17.5%).

Pronouns accounted for 14.1 per cent of the omissions. A few more or a few less specimens of compositions very likely would have changed the rankings of the remaining three types of omissions--conjunctions, adjectives, and adverbs.

Table VII shows the omission of necessary words by these congenitally deaf students at Gallaudet College. Many of the themes were final drafts, and it was obvious that with each draft some of the careless errors were corrected by the students themselves. Only the missing words in the final drafts were tabulated for the purposes of this study.

Omissions by Adventitiously Deaf Students

Since the fifteen adventitiously deaf students made only 68 of the 461 errors of their class, the rankings and per cents of their omissions have little significance. Nouns, pronouns, verbs, and articles were the top four classes of omitted words, but scant emphasis can be given to their rankings in that succession.

Prepositions were fifth with 11.8 per cent, but they, along with conjunctions, adjectives, and adverbs, were too few in number to enable valid listings of relative importance to be made.

Table VIII gives the tabulation for this group of Gallaudet College preparatory students.

TABLE VIII

OMISSION OF NECESSARY WORDS BY ADVENTITIOUSLY DEAF
STUDENTS IN THE PREPARATORY CLASS AT GALLAUDET COLLEGE

Type Omission	Number of Omissions	Per cent of Omissions
Nouns	13	19.2
Pronouns	12	17.6
Verbs	11	16.2
Articles	11	16.2
Prepositions	8	11.8
Conjunctions	6	8.8
Adjectives	4	5.8
Adverbs	3	4.4
Totals	68	100.0

Omissions by Hard-of-Hearing Students

The twenty students classified as being hard-of-hearing had omissions of necessary words which reveal a definite pattern. Articles were the chief offenders--25.1 per cent of the omitted words.

Pronouns were second with 18.9 per cent. Prepositions made up 14.5 per cent of the missing words, and there was a tie for fourth rank between verbs and adverbs--both 10.7 per cent. There was little margin between nouns and conjunctions, with adjectives coming last.

Omissions by the hard-of-hearing students were of almost the same rank as for the entire group. A comparison of Table VI (entire group) with Table IX (hard-of-hearing students) shows that for the latter pronouns were ahead of prepositions for second place, and adverbs outranked nouns.

Comparisons

On account of the differences in classification of the subgroups, only a comparison of whole groups is feasible --the advanced students at Tennessee School for the Deaf and the preparatory students at Gallaudet College. Both groups happened to have 55 individuals whose specimens of compositions were considered.

Most significant of all is the finding that omission of articles comes first for both groups. By comparing Tables II and VI it may be seen that prepositions are high

TABLE IX

OMISSION OF NECESSARY WORDS BY HARD-OF-HEARING
STUDENTS IN THE PREPARATORY CLASS AT GALLAUDET COLLEGE

Type of Omission	Number of Omissions	Per cent of Omissions
Articles	40	25.1
Pronouns	30	18.9
Prepositions	23	14.5
Verbs	17	10.7
Adverbs	17	10.7
Nouns	13	8.2
Conjunctions	12	7.6
Adjectives	7	4.4
Totals	156	100.0

in rank on both lists. Adverbs occupy sixth rank as words omitted by both groups. Adjectives and conjunctions bring up the rear although they are reversed in places.

Using the rank-difference method (Spearman) the coefficient of correlation between the two groups as to types of omissions was found to be fairly high--a positive correlation of .88.

Since this study was concerned mainly with the omission of necessary words by advanced students at Tennessee School for the Deaf, no attempt was made to consider the specific errors of omission of each type by the Gallaudet College preparatory students. It is sufficient to say that their omissions in detail were of similar nature, especially as regards auxiliary verbs and articles.

Omission of the Articles

Table X gives a comparison of the omission of the definite and indefinite articles by the two groups of students. The definite article the was more apt to be omitted than the indefinite forms a and an.

Of the 762 articles omitted by the advanced students at TSD, 396 or 58.9 per cent were the definite article. Fifty-one out of the 92 articles omitted by the Gallaudet College preparatory students were the definite the, 55.4 per cent of the total.

TABLE X

COMPARISON OF DEFINITE AND INDEFINITE ARTICLES
OMITTED BY DEAF STUDENTS IN COMPOSITIONS

Articles	Advanced Students at TSD		Prep Students at Gallaudet	
	Number	Per cent	Number	Per cent
Definite (<u>the</u>)	396	58.9	51	55.4
Indefinite (<u>a</u> , <u>an</u>)	276	41.1	41	44.6
Totals	762	100.0	92	100.0

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Why do deaf students tend to omit so many necessary words in their written compositions? The reason for this type of error are complex and equally applicable to the other kinds of errors they make to some extent.

Reasons for Omission of Necessary Words

It has been noted that the normal hearing child goes through a stage of speech development during which he omits words other than the all-important nouns and verbs. As he begins to take notice of the more highly developed language of others, he makes his own corrections by imitation. The deaf child's only avenue to a better language pattern is through visual stimuli admittedly less receptive than the auditory means. So great is the retardation educationally the deaf child does well to close the gap to about two years in the intermediate grades. It is not the fact that he lacks intelligence but that in the absence of language his mental development proceeds at a slow pace.

Conceivably many omissions of necessary words could be avoided if the deaf child's reading ability progressed to the point where he could be aware of what constitutes good usage and thus to be able to utilize intuitive self-correction in his written language. The normal child senses that his

language is not correct in keeping with good usage--it does not sound right. It would be logical to assume that the deaf child should be able to realize in a similar manner that his written language does not look right. Unfortunately reading ability and language ability are too closely bound together. If the deaf child's language ability is low, his reading prowess is invariably low, too, leaving him no crutch to serve in the role of self-censorship.

Another factor responsible for omissions and the other language disabilities is the lack of sufficient repetition and usage by the deaf child. His sum total of everyday written and spoken language is but a small proportion of his normal brother's constant usage of English. Even then his output lacks the benefits of repetition. In the normal process of speech and language development a single word may be repeated hundreds or even thousands of times before its meaning becomes fixed and before it becomes part of a child's vocabulary. No amount of teaching and drillwork will compensate for the lack of usage because

Language is learned through usage--not built up logically or grammatically. Grammar was formulated from language, and not the other way around. . . . It is frequently advisable to sacrifice some degree of grammatical accuracy to a greater freedom of expression and the use of idiomatic, colloquial English.¹

¹Tobias Brill, "Language in Advanced Grades," Volta Review, 48:681.

Although the learning of a foreign language is hardly comparable to the acquisition of English by the deaf child, one significant parallel can be drawn. The student of a foreign language tends to produce what seems to a native a stiff and stilted style. It is only through constant association with those natives plus long practice and usage that the student's lingual ability is achieved. Therefore, only by similar practice and usage can the deaf child be expected to become proficient in the utilization of English. As respects usage--memory plays a large part because, unless the deaf child can remember with reasonable accuracy what is correct, there will be no improvement in expression.

The deaf child's visual imagery, with its all too great reliance upon concrete objects, is a great handicap. Gaps thereby result in countless word omissions. Objective language becomes dominant to the sacrifice of subjective and figurative language. Much has been said and written about the deaf child's difficulties in dealing with the abstract. Doctor², in citing a statement by Helen Keller to the effect that the education of the deaf was a far greater problem than the education of the blind, pointed out that teaching the abstract to the deaf is inseparably bound to the teaching of language. Likewise, in discussing the abstract, Irion stated:

²Powrie V. Doctor, "On Teaching the Abstract to the Deaf, Volta Review, 52:547, December 1950.

The higher type of mentality deals very largely with abstractions. That type of mentality would be utterly impossible if it were not for some type of sign or symbol which becomes the embodiment of the abstraction. . . . Mentality is dependent upon the development of language.³

Still another reason for the omission of necessary words in the written compositions of deaf children is the very nature of the sign language which tends to become their most common means of communication outside the classroom. One description of the sign language which emphasizes its responsibility for habits of omission states that

The language itself is a highly elliptical or abbreviated or contracted form of human discourse. It is not really composed of words as words are generally understood. Its vocabulary consists only of whatever forms of expression are possible with the movements or position of the body, limbs, fingers, and facial casts or shiftings. In it phrases or "words" that are not strictly necessary have no place. Synonyms are scarce. Formal syntax is largely absent; grammatical distinctions may be introduced only in restricted measure. Parts of speech may be said to exist only within uncertain bounds. . . . The system of signs follows ordinary language in only limited degree, largely departing therefrom in its construction, especially as to the order in which expressions are put. . . .⁴

In attempting to account for omission of necessary words, teachers of the deaf who are familiar with the sign language frequently observe that written expressions are

³Theo. W. H. Irion, "The Place of Language in Mental Development," Proceedings of the 32d Meeting of American Instructors of the Deaf, p. 127.

⁴Harry Best, Deafness and the Deaf in the United States, p. 520.

set down just as if the student had first entertained a visual train of imagery with himself using signs. This is especially true of prepositions, articles, auxiliary verbs, and modifiers. At times some students can be observed signing to themselves outwardly as they write.

Lest the foregoing be mistakingly taken as a major reason for the omission of words and other language difficulties, it should be stated that the written compositions of deaf children follow practically the same line of inaccuracies where the sign language is not known--as in the "pure oral" atmosphere of some schools. At its very best, the sign language accompanied by finger spelling produces a language pattern beyond reproach. The conclusion here is that the sign language in constant usage lessens the practice and repetition of English which would lead to a more normal type of composition. Vocabulary, too, tends to remain limited because there are few synonyms.

Finally, too many omissions are the result of habits differing from student to student. It was noted in the tabulation of omissions that certain students tended to leave out the same part of speech repeatedly. In the case of auxiliary verbs some usages and constructions had, for some reason or other, never become a part of the student's expressions. Omitted prepositions stem from the insufficient teaching of commonplace phrases. Use of fragments of proper nouns indicates lack of attention to the accepted courtesy of

getting names right.

Recommendations

Omission of necessary words is worthy of closer attention than has been the wont because they constitute the largest single type of error in the written composition of deaf children. It is with both shock and a rising feeling of optimism that a teacher of the deaf can contemplate the possibilities of remedial measures. Most of us probably have been unaware that omissions exist to so great an extent, but our experience in correcting written compositions has been such that it is much easier to point out to the children that words are missing than to call their attention to other types of mistakes.

Omissions can best be dealt with on an individual student basis with the teacher keeping a record of the errors. Drillwork should be specific; repetition should serve to eliminate errors one by one. Although it is not as easy as it may sound, the student should be guided into the practice of doing his own proofreading to avoid these omissions. In correcting compositions it is far better to indicate before a line that an omission exists rather than to point out the exact location of the missing word. A caret in the left margin would provide a suitable clue if a teacher desired to use a system of correctional symbols.

More presentation of object lessons in language usage

is insufficient. The principles must be taught and then understood by the students. Then come drillwork and application followed by constant repetition. This can be done in the case of letters--beyond doubt the form of written composition destined to be most used by the student throughout life. It is in their letters that most students reveal their true language ability, and the spontaneous nature of the letter reveals more than other types of compositions. Broadly speaking, deaf students write two types of letters. The first type is the short, matter-of-fact, letter reasonably free of omissions and other errors. It is stereotyped in both form and content. This is the easy way out for both student and teacher, time-saving and free of mental exertion. The second type is full of ideas requiring long and painstaking effort on the part of the student and laborious deliberation by the teacher in an effort to make it a presentable communication. Quite often there is temptation to blue-pencil entire sentences or paragraphs rather than to unscramble the expressions.

Unless pointedly verbose the second type of letter presents a wonderful opportunity for language improvement. Usually it is the result of chance rather than through efforts by the teacher to draw out ideas through explanation and impression as to what makes for a good "give-and-take" letter. There is considerable merit to the suggestion that the deaf child needs to make more use of "small talk" and pertinent

discussion of topics rather than to write merely "news".

The availability of ideas in written composition again calls attention to the relationship of language to mental development. Which comes first? Which should be most sought after? How does the one implement the other? These are questions without answers because development of language and development of mental ability are at least concomitant if not identical.

During the intermediate grades the deaf student passes through the critical state of development of his written composition. His ability must expand or remain at a standstill as he passes on to the advanced grades. Power of expression must not remain confined to the narrative type of composition to which he has become closely accustomed. Imagination must be given full rein; power of projection needs to grow beyond the concrete and habitual present. Omission of shall and will found in this study calls for greater use of the future tense. Unless the perfect tense is introduced and become familiar, it will continue to seem unnatural to the deaf student. Descriptive compositions are needed to develop accurate word pictures; the exposition and the argumentation call for clear thinking with a logical sequence of ideas. Are these beyond the scope of the deaf children in the intermediate grades? Perhaps they are to some extent, but unless they are used to stimulate thinking and power of written expression the problem becomes

almost insurmountable in the advanced grades.

Attractive surroundings, abundant opportunities for meaningful experiences, and suitable materials promote creative expression among young deaf children. They simply effervesce in quests of outlets. There is some carryover of this interest to the intermediate grades, but by the time the deaf students reach the advanced grades a plateau has usually been reached.

Specific Suggestions

What is most needed for the advanced students--at least at Tennessee School for the Deaf--is increased motivation in reading, vocabulary, and adequate use of English. The omission of words, together with other language shortcomings, is a problem for all teachers--not only for the teacher of English. Some suggestions in addition to the foregoing might prove valuable:

1. There must be continued emphasis on the dictum that "every teacher should be a teacher of language" regardless of the subject taught.

2. There must be more of a reading atmosphere. In the intermediate grades care should be given to the stimulation of reading interest before it is too late. In the advanced grades more attention should be devoted to individual problems in reading. Every possible avenue should be explored

to increase outside and recreational reading.

3. Visual aids deserve more emphasis--to stimulate interest in the printed word in addition to their role as instructional devices in language usage.

4. Students should be encouraged to write more letters and to seek help from teachers in their composition. The feeling that the bi-weekly letters home are subject to some censorship needs to be combatted lest the students tend to write long letters outside the classroom in which errors cannot be eliminated.

5. Among the advanced students there is a great need for feature-length news items for the school paper. Those individuals who possess talent, however slight, should be urged to write stories in the third person to be printed under their byline. This has been done in the past, and there is no reason why it cannot be resumed. Teachers could locate and submit typical examples of stories. The first attempts might be close imitations in style, but this should not be considered discouraging or futile.

6. Courtesy notes should not be overlooked as forms of written composition conducive to better language. These notes should actually be written to be mailed. They would enhance the social education of the students as well.

7. Practical experiences are abundant to serve as the subjects of written compositions. Students could be

asked to write reviews of the movies they see--whether their understanding is commendable or not. These themes should offer comments and evaluations in addition to outlining plots. Sports events, parties, programs, and other happenings could also be discussed in writing.

8. Those students who have sufficient ability in speech and speech reading should be given every opportunity to combine these talents with written composition. Speech and speech reading work should go far beyond simple narrative material.

9. Through the principal or other supervisory personnel there should be a better coordination of written language work between the intermediate and advanced grades. Both groups need more information as to the problems of each other. There should be frequent consultations about individual students.

10. To promote greater usage of written English, less time should be spent on workbooks whose contents all too frequently stress formal grammar rather than functional usage. Time spent in the classroom is too short and valuable to be expended upon drillwork intended for normal hearing students whose language problems are of a different nature.

CHAPTER VI

SUMMARY

Acquisition of language by deaf children is a slow process which usually falls short of the degree of perfection found in the normal child whose achievement is the result of orderly and natural development. The problem of educating the deaf child is the problem of teaching him language. His shortcomings have resulted in numerous systems and devices intended to build up his language step-by-step with results far from satisfactory and with no final solution in sight.

Errors Made by Deaf Students

Certain types of errors are common to the written compositions of deaf children. A study by Thompson revealed that the omission of necessary words figured as the major single type of error. His findings in omissions per 1000 running words listed articles separately. As far as could be ascertained, no subsequent attempt was made to analyze the various classification of errors by sub-types.

The Problem

This study was an attempt to analyze the particular nature of the omissions in the written compositions of 55

students in the advanced grades at Tennessee School for the Deaf with view to possible remedial measures. Collection of specimens of compositions, tabulation of omissions, and ascertaining relationships between these errors provided the three major phases of the problem. For purposes of comparison specimens of compositions by the preparatory class at Gallaudet College were obtained and likewise processed. The students in both groups were classified according to nature and onset of deafness and omissions were tabulated separately. Interpretation of these language faults and recommendations with view to their elimination were final stages of the problem.

Value of Such a Study

This undertaking proceeded with the position that such research might lead to the underlying causes of one of the greatest disabilities of deaf children in their written language. It was indicated that too much time and effort have been spent stressing methods or systems of teaching language rather than dealing with specific types of errors.

Difficulties and Shortcomings

This study was limited to the students in only one school for the deaf, and differences in class ability and instructional procedures might render the findings incon-

clusive for students in other schools. There were problems in tabulating errors that introduced the element of personal judgment which might vary from teacher to teacher.

Previous Research

Except for Thompson's summary of errors and a few incidental comments in widely diverse articles appearing in the Volta Review and American Annals of the Deaf, similar research concerning the omission of necessary words in the written language of deaf children is lacking.

Procedure Involved

Omissions were tabulated according to usage as parts of speech. Interjections were not included because of their absence from the language of the deaf children studied. It was found advisable to list articles as a group separate from adjectives because of their frequent omission. Tabulations were made of the advanced students at Tennessee School for the Deaf as a group, and sub-classifications were made for those congenitally deaf, those adventitiously deaf before five, and those adventitiously deaf after five.

The same procedure was used for the preparatory students at Gallaudet College except for the difference in sub-groups--congenitally deaf, adventitiously deaf, and hard-of-hearing.

Omissions of the articles and the seven parts of speech were then expressed as per cents of the total omissions and ranked accordingly in each tabulation.

Lastly, the advanced students at Tennessee School for the Deaf were compared as a group with the preparatory students at Gallaudet College as to the nature of their omissions.

Findings

Omissions by TSD Students

Articles represented 25.3% of the omissions made in 501 specimens of compositions by the TSD students. Verbs came next with 17.7%. The subsequent rankings were: Prepositions, 13.6%; nouns, 13.0%; pronouns, 10.5%; adverbs, 9.2%; Adjectives, 5.5%; and conjunctions, 5.2%.

In the sub-group of congenitally deaf students there was no change in rankings and but little difference in the per cents. Because they composed nearly half the entire group the influence of their errors was great.

Students adventitiously deaf before five made the same kinds of errors as did the whole group and those who were congenitally deaf.

The students adventitiously deaf after five made more omissions of verbs than articles, but the difference was so small that the rankings have low validity. Nouns and pronouns were third and fourth, respectively. Conjunctions, adverbs,

and prepositions were closely bunched in that order, and adjectives were last.

Some specific findings included: (1) Definite articles were omitted more than the indefinite articles; (2) the auxiliary verbs are left out more often than complete verbs; (3) prepositions were omitted most frequently as the single word instead of as the phrase; (4) there was a decided failure to write the complete forms of proper nouns; (5) pronouns tended to be omitted where needed as subjects of sentences; (6) adverbs of time and place the the expletive there were prone to be overlooked; (7) demonstrative adjectives and the limiting adjective some were often absent where called for; and (8) omission of conjunctions occurred frequently before the last item in a series as well as the introduction to subordinate clauses.

Omissions by Gallaudet Preparatory Students

The 55 students in the Gallaudet group omitted the articles more than any other part of speech--19.9 per cent of the total omissions. There was little difference to be noted in the subsequent rankings of prepositions, pronouns, and verbs--16.7%, 16.2%, and 15.3%, respectively. Nouns accounted for 10.6% of the omissions. Adverbs (7.3%), conjunctions (7.6%), and adjectives (5.9%) followed in that order.

Twenty congenitally deaf students omitted prepositions more than any other part of speech for 19.7% of their total

omissions. Verbs and articles trailed closely, followed by pronouns, nouns, and conjunctions. Adjectives and adverbs held an equal rank at the bottom of the tabulation.

The fifteen adventitiously deaf students in this group had too few omissions to give much validity to the findings since nouns, pronouns, verbs, and articles were almost equal in rank. Prepositions, conjunctions, adjectives, and adverbs fell into subsequent places in the eight-item ranking.

Articles were omitted most often by the hard-of-hearing students (25.1%). Pronouns (18.9%) and prepositions (14.5%) came next, followed by a tie for fourth between verbs and adverbs. Nouns, conjunctions, and adjectives completed the list.

Comparison between TSD and Gallaudet Students

Using the rank-difference (Spearman) method, it was found that the correlation between types of omission was a positive .88. Articles were omitted most often by both groups. Prepositions ranked high for both groups. Thus this study found that although the Gallaudet students made fewer errors of omission they tended to make the same kinds of omissions.

Both groups omitted the definite article the more than the indefinite articles a and an.

Conclusions and Recommendations

Reasons for Omissions

(1) Dependence upon the visual rather than the auditory sense is a factor in retardation of language development in the deaf child.

(2) The deaf child lacks the ability to make self-corrections of his omissions. He has no compensation for the intuition which tells the normal hearing child that a sentence does not "sound right".

(3) Insufficient repetition and usage of words and language weigh heavily against the deaf child.

(4) Visual imagery is responsible for many word omissions because concrete objects dominate the thoughts.

(5) Until the deaf child can deal with the abstract, his mentality is underdeveloped. More stress should be made in linking the concrete by means of the abstract--by using articles, prepositions, conjunctions, and somewhat less so adjectives and adverbs.

(6) It is true that the sign language is to some extent responsible for omission of necessary words because quite a few deaf children think out expressions in signs before writing.

(7) Many omissions are due to individual habits which become fixed and difficult to eliminate.

Recommendations

The teacher could do well to keep a record of omissions by each student and to drill accordingly for improvement. If a system of correction of compositions is used, the student should be encouraged to proofread his compositions to find out what words he has omitted.

Letters offer an excellent means for application of principles and drillwork. Ideas should receive attention as well as language itself. The deaf child needs more of the "give-and-take" sort of letter.

In the intermediate grades a stepped-up program is needed in composition. Narrative composition alone is not enough. There is too much thinking in the habitual present tense. More use should be made of the future tense. In writing descriptive, expositive, and argumentative compositions there must be practice in the logical arrangement of ideas.

Closer coordination between intermediate and advanced teachers could be helpful. There is a need for more of a reading atmosphere at both levels.

Students need greater encouragement in writing letters, news items, and courtesy notes.

Practical experiences and school happenings offer varied subjects for written compositions. These projects should involve discussion type papers as well as factual

accounts.

A great deal of the time spent on workbooks intended for normal hearing children could be better utilized in practice in written composition, correction, and specific drillwork.

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APPENDIX

SAMPLES OF WORD OMISSIONS

These listings are representative samples of each type of omission. Omitted words or phrases are underlined where they are considered necessary. The sentences used as illustrations were copied without correction of grammatical or mechanical errors occurring therein in addition to omitted words.

Nouns

Omission of part of a proper noun:

I want you to come to vist the Carlsbad Caverns in Texas with me next summer if nothing happen to you.

Omission of a common noun:

The Monticello estate has been in many hands before at last it was sold to the government for \$500,000.

Omission of a common noun as part of a prepositional phrase:

One of these brothers, Juan, was the most brilliant child in the family.

Pronouns

At last Robert asked his brother why they were busy.

I (H)ope that everything is getting along fine around the neighborhood.

I thanked Grandfather very much because he gave me a lemon pie.

Verbs

Omission of verbs:

It is open from 10 o'clock to 2 o'clock.

This story starts out when Smoky was born on a cold winter day and tells how he got along.

Omission of auxiliary verbs:

I guess I will close for now.

It is all right but you should understand you must let me know if I can go home.

He heard that Aaron Burr was making an expedition down to New Orleans.

Omission of perfect tense forms:

He has been through college and has spent two years at an engineering school.

I wish I could have spend yesterday with you at home.

Adverbs

I want to visit at my home about 3 days and then come back to school.

I will write you again soon.

I am happy that you will come to take me home October 25.

I arrive hear safely.

Adjectives

After George Washington's death, he left the whole 5000 acres to his nephew, Judge Bushrod Washington

I am very eager to see Dorothy and Pete.

He had a fight with some men during his stay in Bath.

Prepositions

Omission of preposition itself:

Also Rebecca won an award of \$50 for writing a poem clearing the year's mortgage at home and kept her mother.

I want you to come after me at 3:30 if you can.

Omission of preposition as part of a prepositional phrase:

I know him by sight but I don't know his name.

Conjunctions

Omission before the last item of a series:

Dear Mother, Daddy, and Sister,

The most important characters in the book are Robert E. Lee, Mrs. Lee, and Mr. Lee.

Omission where necessary to introduce clauses;

Don't worry about me because now I am all right.

Articles

Omission of the definite article:

Stubb killed a black whale and he was fond of the taste of flesh.

The Irishwoman told Tom that she lived far away by the sea and in summer children bathed and played in the sea.

Omission of the indefinite articles:

The Capitol has a place among the beautiful buildings of the world.

I am very surprised that Peggy had an engagement ring to Charles Ward.

Infinitives

I like to work for her.

I am going to write this letter to let you know that I am doing fine now.

Then she went to see Grandfather sitting on the bench.

Multiple Omissions

Some sentences contained multiple omissions of necessary words as well as other errors. Below a typical sentence of this sort is given:

"I been wait for mother come over my school about hour."

The sentence in corrected form appears thus:

"I had been wait(ing) for (M)other to come over to my school for about an hour."

The underscored words indicate omissions; the changes shown in parentheses represent other errors. In this sentence alone there were five omissions: (1) verb--perfect tense auxiliary; (2) infinitive--used as an adverb; (3) and (4) prepositions--to and for; and (5) article--indefinite an.