Gustason, G. (1990). Signing exact english. In H. Bornstein (Ed.), Manual Communication: Implications for Education (pp. 108-127). Washington, D.C.: Gallaudet University Press.

(Note: pp. 109, 100, and 123–127 are missing from this representation; students or researchers are referred to Borstein (1990) for the complete article.)

CHAPTER 6

Signing Exact English

Gerilee Gustason

There were three basic reasons for the development of Manually Coded English systems in general and Signing Exact English (SEE) in particular.

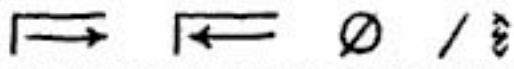
1. Dissatisfaction with educational achievement levels of deaf children,
2. Increased knowledge of normal language development in hearing children and the importance of the first few years of life in this process, and
3. Dissatisfaction with the ambiguous input of speechreading alone.

Regarding educational achievement, research studies from the beginning of the century indicated that American programs for the deaf were not doing very well at teaching English to deaf students. Various studies indicated that

1. Deaf children wrote short and simple sentences, those of a 17-year-old deaf student being comparable to those of a hearing child in third grade (Heider and Heider 1940);
2. Deaf students' use of clauses differed from that of hearing children, being simpler and more rule-bound (Reay 1946);
3. Deaf students' vocabulary tended to be considerably smaller than that of their hearing peers (Ibid.);
4. Deaf students' grasp of the morphological and syntactical rules of English was weak and without a clear pattern of development, in contrast to that of hearing children (Cooper 1965);
5. Deaf students used fewer adverbs, auxiliaries, and conjunctions than did hearing children (Simmons 1962);
6. About half the language errors made by deaf students were errors of omission of necessary words (Myklebust 1965);
7. Lexical, or dictionary, meanings were easier for deaf students than structural meanings (e.g., a chair as something to sit on versus to chair a meeting) (Hart and Rosenstein 1964).

Reading achievement and language scores had hovered around the level attained by fourth- and fifth-grade hearing children for more than fifty years. In the 1960s, it was reported that, in studies covering 93 percent of deaf students in the

ART

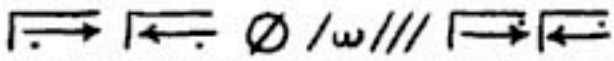


Left open B hand, palm right, fingers point outward.

Right A hand, palm left, thumb uppermost.

With right hand draw a wavy line downwards across the palm of the left hand.

ALLOW

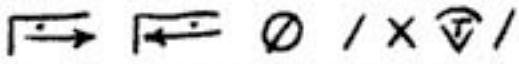


Both open B hands, palm to palm but not touching in front of you, pointing down.

Twist to point upward.

(cf. let, permit)

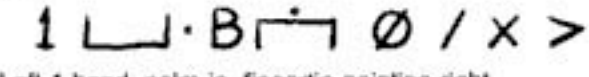
ASK



Both open B hands, palms facing each other, fingers pointing forward.

Touch hands together and arch toward chest.

BAR



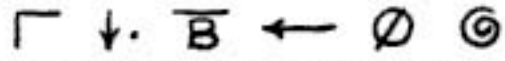
Left 1 hand, palm in, fingertip pointing right.

Right B hand, palm out, fingertips up.

Place heel of right hand on top of left wrist and slide along hand and off to the right.

(cf. row, line)

BASE



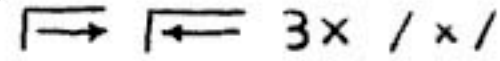
Left open B hand, palm down, fingers pointing right.

Right B hand, palm left, fingers pointing outward.

With right hand make small circular motion under left hand.

BASIC: base + ic

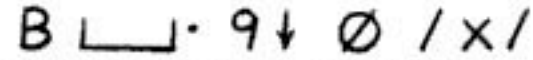
BED



Two open B hands, palms together.

Place hands on right cheek, fingers pointing upwards; rest head on the back of the left hand.

BEEF



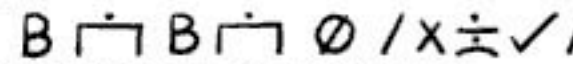
Left B hand, palm in, fingertips pointing right.

Right 9 hand, palm down.

Grasp the flesh between the thumb and forefinger with right hand, as in the traditional sign for "meat."

(cf. ham, pork)

BIG



Both B hands, palm out, fingertips upward.

Touch sides of index fingers, move outward in a slight upward arc.

(cf. great, large)

Figure 1. Description of signs created for Seeing Essential English.

In the early summer of 1971, Mr. Anthony finished a two-volume book, *Seeing Essential English*. The original committee had awaited this book for use in teaching, but they found many of its signs unacceptable and presented in a format they felt was difficult to decipher. The chief reason for this disagreement was the degree of dependence by Mr. Anthony on the "root-word" concept; for example, he considered *gene* the root for *general* and *generous*, and *secret* the root for *secretary*. The others in the original group felt this was an excessive breaking up of English words and too radical a departure from the traditional signs of ASL. While they accepted the sign for *gene*, they did not feel that *general* or *generous* were related to this word, nor did they feel that *secretary* was related to *secret*.

Meanwhile, the inadequacy of the cop-

ied descriptions and the difficulty of sharing information concerning newly developed signs over a geographical separation of hundreds of miles, coupled with a disagreement over the clearest and easiest way to depict a sign in print, led to a further split of the original group. Most members of the group were in favor of pictures and written descriptions of signs. Dennis Wampler, of northern California, had been interested in the SEE work for over a year. He believed that exact correctness of sign production from a printed page was possible only with a symbol system such as that developed by Dr. Stokoe in his work with ASL. This system utilized symbols for handshape, position, and movement. While the original group had attempted to use, with Dr. Stokoe's permission, an adapted form of these symbols, they had found most parents unable to cope effectively with symbols. Mr. Anthony's book included similar symbols paired with a written description, but Mr. Wampler felt so strongly about the value of such a symbol system that he decided to publish on his own. In the summer of 1971, he printed a morpheme list under the name *Linguistics of Visual English* (see figure 2).

While agreeing to the value of such a symbol system in studying sign language linguistically, the remaining members of the original group found it impractical for use in teaching sign classes. Accordingly, work progressed on a picture-plus-written-description book of basic signs.

At the same time, the committee had been approached during early 1971 by the National Association of the Deaf (NAD) concerning the possibility of developing drawings for 300 basic new signs, including verb inflections (*-ing, -ed*, etc.) and pronouns (*he, she*, etc.), and these drawings had been made. Upon the publication of *Seeing Essential English*, and the discovery that it would not fill the need the committee felt to exist, the committee requested the 300 drawings back from the NAD. An artist, Carolyn Norris, was enlisted, approximately 1200 more drawings were done, and a basic volume was readied for publication. The NAD was not at that time interested in publishing an entire volume of SEE signs, so Ms. Zawolkow, Ms. Pfetzing, Dr. Norris, and I formed a partnership to underwrite the first publication of *Signing Exact English*, in the spring of 1972. Signing Exact English is now known as SEE II. The SEE acronym was kept because it was felt that the general thrust of the work was already being labelled as SEE.

THE ORIGINAL TEN TENETS

When the SEE group was formed in early 1969, the following ten basic tenets were accepted by the entire group:

1. *Acquiring good English is a tremendously difficult task for a child born deaf.* The information on the educational achievement of deaf students was most relevant to this tenet.
2. *The most important factor in acquiring good English is an understanding of its syntax or structure.* Word order is important (e.g., *The man beat the boy* and *The boy beat the man* contain the same words, but their meanings are different because of word order). Also, word endings are important (e.g., an *interested* man is different from an *interesting* man). As the number of words in a sentence increases, the complexity of their relationship may increase and so may the need to understand grammar and syntax to properly interpret the meaning of the sentence.
3. *Normal input must precede normal output. Aural input being blocked, visual input must be used.* For a hearing child, constant repetition of a language in his or her environment, rather than formal lessons, constitutes the base of his or her native language learning. Since a deaf child cannot hear such language, he or she must see it.

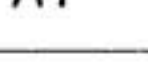
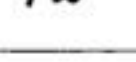
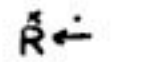
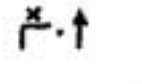
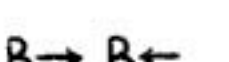
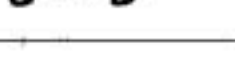
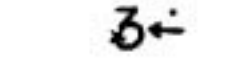
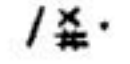
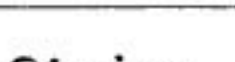
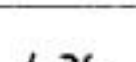
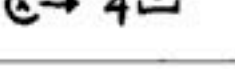
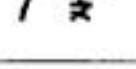
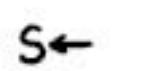
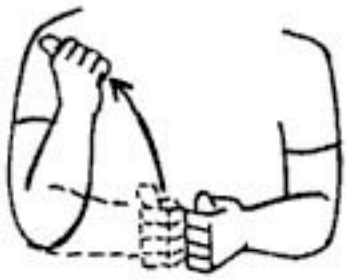
MORPHEME(S)	SHAPE	POSITION	MOVEMENT	FINAL SHAPE
A				
AN				
ARE				
ARM				
BIG				
BUG				
CAGE				
CAN				
CHANGE				
CIGARETTE				
COAT				
DAD				
DRY				

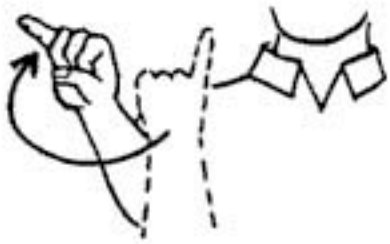
Figure 2. The symbols developed for Linguistics of Visual English.



-EST
A-hands together; right A moves up

-ED
(ALT. 1)
Palm of hand flips back toward shoulder
(past tense)

-ED
(ALT. 2)
For regular past tense (-ed), make a palm-out D at the end of the sign



-ING
Palm-in, I-hand twists in slight downward arc to right, ending palm-out

-MENT
Side of M slides down left fingers and palm

UN-
U-hands, palm-down, cross at wrists; separate sideways
(See "NOT")

Figure 3. Word affixes used in Manual English systems.

4. *The visual cues of speechreading are too small and ambiguous to make normal, natural language learning possible.* Research on this has already been cited.
5. *Sign language is easier to see than speechreading or fingerspelling.* Since the focus was on very young children, the perception of gross movements as contrasted with the small movements of the lips or fingers was stressed.
6. *The feeling for structure is more important than the ability to spell the word in question immediately.* It was pointed out that the hearing child learns words as a whole, such as *cat* instead of the letters *C-A-T*. Verb tenses, articles, and auxiliaries are spoken before they can be spelled. It was felt that if a deaf child knew when to use a sign for *the*, or for word endings, she or he would be more able to use a printed or spelled substitute in a sentence.
7. *The patterns or structure of English may easily be added to sign language.* The traditional sign TO BE has had at least twelve different translations—*is, am, are, was, were, been, being, exist, real, true, sure, be.* No signs existed in ASL for many structural English words, such as *the*. Tenses were indicated by the use of a time word, such as *yesterday*, and the words *go, went*, and *gone* had the same sign.
8. *It is easier to sign all parts of a sentence than to sign some and spell others.* Signs and fingerspelling had been around for quite some time, but few individuals would sign INTEREST and spell *i-n-g* or *e-d*. In addition, the inclusion of spelled items in a signed sentence was easy to overlook, es-

FRUIT
Finger and thumbtip of F on cheek; twist wrist
(See "APPLE")

THE
(Alt. 1)
Palm-down Y drops slightly

THE
(Alt. 2)
Palm-in T; twist to palm-out

Figure 4. Examples of new signs created for SEE II.

pecially when the spelled words were not content words but structure words such as *the, so,* and *to.*

9. *Any specific sign should mean one and only one thing.* Although ASL did not distinguish among *have, has,* and *had,* there were at least three different signs for *have,* depending on whether the meaning was possession, completion, or a finished act. Differences in signs among English synonyms such as *pretty, beauty, beautiful,* and *lovely* often depend in ASL on a difference in size or emphasis of sign. Deaf students had demonstrated problems with multiple-meaning words such as *run.* Accordingly, the SEE group felt that a visual representation of English needed to reflect English word usage, not ASL usage. The traditional signs of ASL were fine, it was felt, for the communication of concepts. However, the students using these signs were often unable to translate them to appropriate English. Accordingly, this tenet "froze" signs to represent only one English word each.
10. *English should be signed as it is spoken. This is especially true of idioms.* English is a highly idiomatic language, and many deaf students had demonstrated difficulty with such idioms. The SEE group felt that signing English literally would naturally expose the students to idioms, such as "dry up," "stop horsing around," "pipe down," "knock it off," and "blow my mind." Meaning would come through usage and exposure, just as a hearing child learns language.

THE PRINCIPLES OF SIGNING EXACT ENGLISH

Generally speaking, Manual English systems have three basic types of additions to the traditional signs of ASL, other than following English word order. Because the grammar of ASL is not the grammar of English, the use of English word order is common to all Manual English systems. In addition, these systems employ (a) the addition of word endings, tenses, and affixes (e.g., *-est, -ed, -ing, -ment, un-,* etc.), (b) the creation of new signs for English words not represented in ASL by single signs (e.g., *fruit* [signed in ASL as "APPLE-ORANGE-BANANA-ETC."] and *the*); and (c) the use of initials with base signs to distinguish English synonyms (e.g., maintaining the basic ASL sign for BEAUTY, using the P handshape in the same movement for PRETTY, and the L handshape for LOVELY) (see figures 3, 4, and 5).

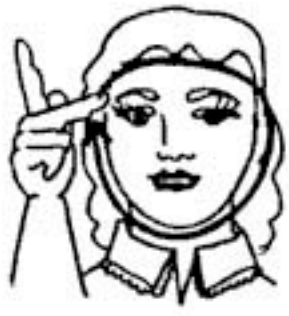
Beyond this, SEE divides English words

FACE
Index finger circles face

BEAUTY
Circle face with 5-hand closing to 0

BEAUTIFUL (BEAUTY + /-FUL)
(See "FACE")

LOVELY
Palm-in L circles face
(See "FACE")



PRETTY
Middle fingertip of P circles face
(See "FACE")

Figure 5. Initialized signs created for SEE II.

into three groups—basic words, complex words, and compound words.

Basic Words. Those words from which no letter can be taken away and still leave a whole word (e.g., *girl, run,* or *happy*) are called basic words. In order to represent as exactly as possible what is said in English, including the use of multiple-meaning words, a "two-out-of-three" rule is followed in determining whether or not to use one sign for words: Is the word *spelled* the same? Does the word *sound* the same? Does the word *mean* the same thing?

If any two of the three elements are the same in a given English word, only one sign is used. If only one element is the same, a different sign is used. For example, *right, rite,* and *write* are signed differently because, although they sound the same, spelling and meaning are different. To *wind* a watch is signed differently from the *wind* is blowing because only spelling is the same, while sound and meaning are different. However, to *bear* a burden, to *bear* a child, and to meet a *bear* are all signed with the same basic sign for the word *bear* because spelling and sound are the same and only meaning differs. Similarly, only one sign for *run* is used whether the meaning is John is *running,* the water is *running,* your nose is *running,* the motor is *running,* or the man is *running* for office.

The placement or movement of the sign may vary to aid in conveying meaning, but the basic sign is the same for such multiple-meaning words, to indicate what English word was used. The main reason for this was to represent on the hands what was said in English, so the students learned how a concept was represented in English. It should be remembered that deaf stu-

dents in past research had exhibited difficulty with multiple-meaning English words, such as *chair* or *run*. By representing the English word and adding meaning through context, experience, explanation, mime, or any other means, the student would theoretically end up with both the English word and the concept it represented in a given sentence.

Complex Words. When an affix is added to a basic word it creates a complex word (e.g., *girls, talking*, or *unhappy*). With such words, the affix is added in sign to the basic sign. The addition represents the spoken/written affix, not the word class; for instance, *-s* may represent the plural (*girls*) or the third person singular verb (he *walks*); *-ing* may be used with verbs (he is *walking*) or with adjectives (it was an *interesting* lecture). Because English has many words with multiple affixes, the signing of every affix on a complex word may become cumbersome—as in *anti-dis-establish-ment-ar-ian-ism*. When multiple affixes are used, SEE drops middle affixes if there is no resulting confusion as to which English word is represented. An introduction to the word for the first time might include all the markers for instruction, but in normal communication middle markers could be dropped. For instance:

Exam is a basic sign.
Exams is signed EXAM + S.
Examine is signed EXAM + INE.
Examines is signed EXAM + INE + S, as dropping the *-ine* could result in confusion between *exams* and *examines*.
Examination is signed EXAM + TION, as dropping the *-ine* does not cause confusion as to which word is represented.
Examinations is signed EXAM + TION + S, to differentiate from *exams* and *examines*.

Compound Words. Two or more basic words together form a compound word. A compound word is signed as the component basic words only if the meanings of the basic words are retained in the compound (e.g., *blackbird, chalkboard*, or *underline*). If the meanings of the basic words are not retained, the word is considered to be a basic word itself. *Understand*, for instance, has no relation to the meaning of the words *under* or *stand*, and *understand* is considered a basic word. Similarly, *forget* is not related to the meaning of *for* or *get*, so *forget* is treated as a basic word with one sign.

When an inflection, such as past tense, is added to a basic sign, the resulting word is no longer a basic word. Accordingly, adding the past tense marker to SEE to produce SAW is appropriate for "I *saw* you yesterday," but it would not be the same sign for the basic word *saw* in "I will *saw* some wood." Similarly, in "I *left* town yesterday," LEFT is signed LEAVE + past tense (*-ed*), while in "turn *left* at the corner," LEFT is a different sign and is a basic word itself.

Inventing

When a sign already exists in ASL that is clear and unambiguous and translates to only one English word, that sign is retained in SEE. This is true not only of basic signs/words such as GIRL, TREE, THINK, and the like, but of complex words such as CARELESS, CAN'T, or MISUNDERSTAND. Some signers prefer to sign these words as their component English parts (e.g., *mis-* + *understand*).

When the first letter is added to a basic sign to create English synonyms, the uninitialized basic sign is retained wherever possible for the most commonly used English word. For instance, the basic uninitialized sign is retained for MAKE, while initials are added for CREATE, PRODUCE, etc.

When several ASL signs exist for one English word, such as *right* or *bear*, SEE determines whether any of the signs have other English words. For instance, the ASL sign RIGHT is different in "you are *right*" than in "turn *right* at the corner." The ASL sign in the first example, meaning *correct*, is also translatable as *correct*, while the ASL sign in the second example, which indi-

cates direction, has no other English translation. Accordingly, in SEE, the ASL sign for the direction RIGHT is retained for the English multiple-meaning word *right*, while the ASL sign for *right*, meaning *correct*, is used for the English word *correct*. In SEE, a longer movement may be used for RIGHT when direction is meant and a shorter movement when the meaning is *correct*, but the basic sign is the same. When there are multiple signs, as with *bear*, SEE attempts to select the most neutral sign rather than one that visually represents the concept of one meaning, or to combine several meanings into one sign. The SEE sign for *bear* is a combination of the ASL sign for the animal and the ASL sign for *carry*. Such combination signs may be signed creatively in SEE to retain the basic sign while suggesting meaning (see figure 6).

When selecting signs, SEE suggests that five steps be followed.

1. Seek an existing sign. Consult sign books, Deaf adults, expert signers. Do not invent a sign if one already exists.
2. Modify an existing sign. This may mean the addition of the first letter to a basic sign.
3. Consider fingerspelling. If the word is seldom used, it may not be necessary to invent a sign.
4. When inventing a sign, follow the principles of ASL. These include keeping the sign in normal signing space (usually from top of head to waist), having both hands the same shape if both hands move, and keeping small differences in signs to those made near the center of vision, such as the mouth area.
5. Consider the meaning of the word, including all multiple meanings, and look for obvious characteristics or similar words that already have signs that could be modified.

Inclusion of Features of ASL

As noted previously, SEE retains clear and unambiguous signs from ASL that have only one English translation. In addition, SEE users are encouraged to incorporate as many of the following principles from ASL into their signing as possible.

Negation. A phrase can become negative in ASLwithout signing *not* or other negative by shaking the head. This headshake is important to use with negatives in SEE.

Questioning. Raising the eyebrows and tilting the head slightly indicates that a yes-no question is being asked (e.g., Do you want some cake?). Another facial expression often used is frowning slightly when asking a question with a WH word (*who, what, when, where, how,* and *why;* e.g., What did you say?).

Placement. The location of the sign for the thing or the act being described adds additional meaning. For example, signing BOW near the hair conveys a different meaning than signing BOW near the neck (for a bow tie). Similarly, the placement of the sign PAIN indicates where the pain is located (e.g., near the neck, near the side, near the head, etc.).

Directionality. The signs for action verbs are made in the direction of the receiver of the action. For example, signing GIVE away from yourself when you are the giver or toward yourself when you are the receiver.

Emphasis. An emphasized word can be signed a bit larger and stronger and by leaning forward slightly with an appropriate expression.

Modification. Signs can be made larger or smaller, or faster or slower, to fit what is meant. For example, in the sentence, He lives in a big house, BIG may be signed with a large movement to show a really big house or with a very small movement to show a very small house and that you are being sarcastic. SLOW may be signed at a normal rate, or very slowly if you want to emphasize just how slow the action is.

Reduplication. Sometimes signs may be

Figure 6. Slight variations of SEE signs can convey different meanings.

repeated to show plurality. *Books* may be signed BOOK-BOOK-S, or *trees* may be signed moving the sign TREE to represent several trees before adding *-s*. A sign may also be repeated to show continuing action; for example, to convey the meaning of He studies every day, *study* would be signed STUDY-STUDY-STUDY-S. The sign STUDY would also be repeated and made with more emphasis to show difficulty, as in He is studying very hard.

Sight-line. The direction of the sign and the signer's gaze should be in the direction meant by the sentence. For example, Look out the window, should be signed (and the signer should look) in the direction of the window; Look at the plane, should be

signed upward (if that is where the plane is). Look at the floor, should be signed downward, and so on.

Translation/comparison. When the deaf student knows ASL, it is very helpful to add the ASL translation of an idiom or concept following the English. For instance, Your nose is running, can be signed in SEE and followed by the ASL sign for that concept. Run up the flag, can be signed in SEE and followed by the miming of pulling the rope on the flag; and I have a run in my stocking, can be followed by the ASL sign for a run in a stocking. This, of course, implies that both the student and the signer know ASL. Also, a teacher who knows both SEE and ASL can in this way present a student with the opportunity to learn how concepts are represented in both English and ASL.

SUPPORT MATERIALS AND SERVICES FOR SEE

The SEE text has undergone several revisions over the years. Two supplements have been published since the original text was published in 1972. Some of the signs in the original edition changed over time, partly as a result of use and experience with the signs in the field and the modification of unwieldy signs, and partly as a result of more and more information becoming available from the research on ASL. For instance, in the first edition, the sign for *mushroom* consisted of a dominant hand M handshape rubbing the back of a base hand R handshape. This not only gave no indication of the concept of a mushroom, but violated the ASL principle of having the same handshape on both hands or the nonmoving hand having a neutral (1, A, S, B, C, 5, or 0) handshape. Accordingly, the sign was modified so the bent dominant hand capped a base flat-0 hand, representing the mushroom shape.

Similarly, some signs became more simplified. The original sign WAS consisted of a W handshape at the lips (where the traditional sign for TO BE originated), changing to an S going backwards over the shoulder to indicate the past. This was modified by usage into a W handshape in front of the shoulder moving backwards without changing into the S.

Such changes, of course, were met with complaints from people who had purchased and were using the original edition. However, they were made, although some people who learned to sign from the first edition have retained the original signs.

Through the years, additional materials were developed by a variety of individuals, all of whom worked with deaf children in some way or were related to them. The basic text of *Signing Exact English*, which in the 1980 edition included over 3750 words and affixes, is organized in dictionary format. An increasing number of support materials are also available. Three kits of five-by-eight-inch flashcards are available (Censoplano, Gustason, and Zawolkow 1981). Kit A includes 406 vocabulary items organized in categories of foods, clothing, people, etc. Each card presents a picture of an object on one side and its sign on the other. Kit B presents the same vocabulary as in Kit A with the sign on one side and the printed word on the other. Kit C consists of the 220 words from the Dolch basic vocabulary list (the most common words in print in English—*a, the, an*, etc.), with the sign on one side and the printed word on the other. These materials have been used not only in preschools for deaf children but in homes, with individuals who have no language, with non-English-speaking families learning English along with signs, with hearing children who are autistic or aphasic, and with others.

In addition, several storybooks for children are available, with more in preparation. Some of the books are *Jean's Christmas Stocking, In Our House, I Was So Mad, The Little Green Monster, Popsicles Are Cold*, and *At Grandma's House* (all available from Modern Signs Press, Inc., Los Alamitos, CA). A fingerspelling coloring book for children and a coloring book of numbers

are also available. A collection of signed songs for children, *Music in Motion* (Wojcio, Gustason, and Zawolkow 1983), includes words, signs, and music. There is a SEE poster of the Pledge of Allegiance. Some of the most basic uninitialized vocabulary from SEE has been translated into Spanish for Spanish-speaking families of children in school programs using SEE. This book is called *Signos para Ingles Exacto* (Gustason and Zawolkow 1982). A manual for teachers of sign classes teaching SEE to teachers, parents, or other sign class students, called *Teaching and Learning Signing Exact English: An Idea Book* (Gustason 1983), is available. This manual includes background information on SEE, two beginning- level curricula, worksheets on basic/complex/compound words, practice sentences for the use of affixes, and practice sentences for sign families (e.g., *make/create/produce*). Some sample items for tests of knowledge of SEE, and sample projects for college classes, are included. A videotaped series of fourteen lessons is available in Beta, VHS, or ¾" U-matic format for one of the beginning-level curricula. A newsletter, *SEE What's Happening* (available from Modern Signs Press, Los Alamitos, CA), is published quarterly, with articles by teachers, administrators, parents, deaf students, educational interpreters, and others using SEE.

Two videotapes are available from Modern Signs Press (Los Alamitos, CA) concerning the use of SEE. One, *Sign What You Say*, is a set of interviews with seven students, ranging in age from nine to seventeen, to show how students who grew up with SEE were communicating in English, speech, and signs. The second tape, *Mothers Look at Total Communication*, is an interview with two mothers of deaf children as they talk about their discovery of their children's deafness, their decision to use signs, and their experience with SEE.

A book of collected articles about total communication in general and SEE in particular, called *Using Signing Exact English in Total Communication*, was published in 1980. This book is now out of print but was updated and republished under the title *Signing English: Exact or Not?* (Gustason 1988). More materials are constantly being added.

In addition, workshops on SEE-related topics are given on request to school programs or parent organizations. These include basic information on SEE, workshops to improve signing skills, including the use of ASL features while signing SEE, and information on evaluation of signing skills.

Recently, an expressive skills evaluation was developed to provide feedback to signers on their use of SEE vocabulary, their clarity, fluency, rhythm, rate, expressiveness, and use of ASL principles.

A nonprofit membership organization, The SEE Center for the Advancement of Deaf Children, was established in the fall of 1984 and provides information not only on SEE but on deafness, resources for parents of deaf children, evaluations and workshops for SEE skills, and other services. The SEE Center is located in Los Alamitos, California, between Los Angeles and Orange counties.

COMMON CONCERNS, PROBLEMS, AND MISCONCEPTIONS

As interest in both SEE and ASL grew, critics expressed concern that the developers of SEE were ignorant of ASL and/or wanted to do away with it. This was very far from the truth, though. One of the developers, Ms. Zawolkow, is the daughter of deaf parents and she had grown up using ASL. I, myself, although deaf, am not a native signer. I had, however, become familiar with ASL during my years as a dormitory supervisor and a teacher in a residential school and as a professor at Gallaudet University, and during my interaction with other deaf adults over the years.

Ms. Pfetzing, who was not an ASL signer, died in 1976, and further developmental

work rested with Ms. Zawolkow and me. We were careful not to invent signs when a viable sign already existed and had only one English translation; we followed ASL principles in inventing signs as more knowledge of these principles became available through research; and we urged SEE users to incorporate ASL principles such as placement and directionality. In addition, we encouraged the use of English-as-a-Second-Language methods with older deaf students who already knew ASL, but were enrolled in programs that used SEE.

Over the years we have identified eleven basic problems common to users of the new system.

Excessive Breaking-up of Words. This was sometimes done as a joke and taken seriously, and was sometimes due to ignorance of ASL and English morphemes. For instance, *understand* was sometimes signed as UNDER + STAND, or *always* as ALL + WAY + S, or *ahead* as A + HEAD.

Overinitialization. While using the first letter is a common way to handle synonyms, some people got carried away and began to add the first letter to almost everything. Examples of unneeded initialization include RED and PLEASE.

Ignoring Local Variants of Signs. The signs in the SEE book were meant as suggestions, not gospel. They were not meant to take precedence over clear, unambiguous, local signs. For instance, *football* has a number of different sign variants in different parts of the country, and which one should be used depends on common usage in the locality. Many individuals, however, taught themselves to sign from the SEE book and were not in contact with the local Deaf community to learn local usage.

Irresponsible Creation of Signs. When a parent or teacher began using SEE or other Manual English systems, it was difficult not to invent signs when none were listed in the book for vocabulary the parent or teacher needed. However, most such individuals had no background in ASL and did not always search for already existing signs in other books. Accordingly, it was possible to (a) have too many signs for the same word in the same school, (b) invent signs for words that already had existing signs, and (c) invent signs that already existed but meant something else or were in some way offensive.

Improper Stress or Separation of Word Endings. Sometimes word endings, such as *-ing* or *-ed*, were stressed by individuals who were trying to remember to make the sign, creating a situation in which more stress or importance seemed to be given to the ending than to the basic word sign itself. The SEE book added instructions on how to make the word ending flow from the basic word sign.

Use of SEE in an Inappropriate Situation. It was never intended, nor was it appropriate, to use SEE to interpret for a group of Deaf adults who did not understand SEE. However, some parents and teachers who had learned SEE used it in perhaps inappropriate situations because they had not yet learned how to use anything else.

Failure to Build an Awareness of and a Positive Attitude Toward All Forms of Sign on the Continuum. This has been a very real problem. Some individuals who were willing to learn and use Signed English were afraid that ASL would be a negative influence on children's English skills. Far more common, however, were negative attitudes toward SEE in teachers of ASL, which were then instilled in their students. This created a polarization that was destructive and unnecessary. The SEE teacher's manual stresses the importance of building positive attitudes toward all forms of communication and the awareness that there is a time, place, and advantage for everything. Negative attitudes instilled toward other forms can only do harm.