

A Review of Current Terminology Used in Deaf Education and Signing

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Terminology used in deaf education and signing is reviewed. First, a summary of deaf education philosophies and methods is presented. Emphasis is placed on distinguishing between the Total Approach/Total Communication and the Simultaneous Method/Simultaneous Communication. This is followed by discussions of American Sign Language (ASL), sign systems for English, and in-group signs/signing. Systems for signing English are grouped under the general heading of Manually Coded English (MCE). MCE systems discussed include Pidgin Sign English (PSE), Manual English (ME) (for example, Seeing Essential English, Signing Exact English, and the Gallaudet Preschool Signed English System), and fingerspelling (as used in the Rochester Method and Visible English). This review, hopefully, will promote understanding and consistency in use of terminology, and thus contribute to meaningful dialogue concerning issues related to education and rehabilitation for deaf and hard-of-hearing students and clients.

Previous publications of the *Journal of the Academy of Rehabilitative Audiology* have included articles that discussed (a) the role of sign and simultaneous communication in education and rehabilitation with deaf and hard-of-hearing persons (Caccamise & Johnson, 1978), and (b) sign language instructional materials for speech, language, and hearing professionals (Caccamise, Smith, Yust, & Beykirch, 1981). Both of these articles stressed the importance of speech-language-hearing professionals having an appreciation for and understanding of all communication modes (spoken, sign, and written) in order to optimize services provided for deaf and hard-of-hearing students and clients. Further, the need to consider two languages, American Sign Language (ASL) and English, in the planning and delivery of educational and rehabilitative services for these students/clients was emphasized. The pur-

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poses of this article are (a) to discuss terminology currently used for deaf education philosophies and methods, (b) to discuss terminology for American Sign Language (ASL) and approaches to signing English, and (c) to briefly describe ASL and sign systems for English. This information hopefully will promote understanding and consistency in use of terminology, and thus contribute to meaningful dialogue concerning issues related to deaf education and rehabilitation for deaf and hard-of-hearing students and clients.

In 1976, Caccamise and Drury provided a review of "current" terminology used in deaf education and signing. Given that the confusion discussed by these authors over the meaning and use of this terminology (especially Total Approach/Total Communication and Simultaneous Method/Simultaneous Communication) has continued to persist, it was decided to organize the information and discussion in this paper as follows: (a) a review of deaf education philosophies and methods adapted from Caccamise and Drury; (b) an updated comparison of Total Approach/Total Communication (TA/TC) and the Simultaneous Method/Simultaneous Communication; and (c) a discussion of ASL and sign systems for English, including current sign terminology and a comparison of ASL and English in sign and spoken modalities.

DEFINITIONS AND DISCUSSION OF EDUCATIONAL PHILOSOPHIES AND METHODS *(adapted from Caccamise & Drury, 1976)*

The basic philosophies and methods for deaf education in the United States are Oralism/Oral Method (also called the Oral-Aural Method), the Auditory Approach (also called the Acoustic Method and Acoupedics), the Rochester Method, the Simultaneous Method/Simultaneous Communication, and Total Approach/Total Communication.¹ In selecting definitions for each of these, authoritative sources written by persons recognized as having practiced and/or supported these philosophies and methods were used.

¹Caccamise and Drury (1976) discussed another method referred to in the literature as the Manual Method or Manualism. They stated that in its strictest form this method would involve the education of students through *purely* manual methods (signing, fingerspelling, natural gestures, etc.), exclusive of oral-aural methods. Although such a method may be practiced by a small number of individuals, Caccamise and Drury were unable to find a supporter of such a method in the literature or personally. They stated, therefore, that, although manualism as part of other more encompassing methods is much alive, as a strict methodology it is non-existent. They pointed out that this view is supported by Babbidge (1965), Moores (1970), Schreiber (1969), Silverman and Lane (1970), and Vernon (1969). As Silverman and Lane succinctly stated, ". . . there is universal agreement among educators of the deaf that every deaf child should be given an opportunity to communicate by speech . . ." (p. 390).

Oralism, Oral Method, Oral-Aural Method

Pratt (1961) defined the "exclusively oral approach" as "speech, lipreading, reading, and writing — assisted by auditory training and the usual educational aids used with hearing children — without the use of the manual alphabet or the sign language, in the classroom or out of it." (p. 1).

Auditory Approach, Acoustic Method, Acoupedics

Pollack (1964) defined this method as follows:

Acoupedics is an educational program for limited-hearing children which is based on the premise that an emphasis on training audition takes advantage of the fact that hearing gives continued contact with the environment, emphasizing listening as a continuous activity which keeps the individual in constant contact with the world around him. Departing from the multi-sensori approach, the acoupedic method avoids lipreading. (p. 400)

In the September, 1973 issue of *The Volta Review* Hiney described the Auditory Approach as follows:

The auditory approach to the education of the hearing impaired emphasizes early detection, use of residual hearing, early and consistent amplification, and, ultimately, integration into the normal-hearing world. It places primary emphasis on *audition* rather than vision in the development of oral communication skills. Unlike traditional oral methods of education, the auditory approach stresses how well the child can use his residual hearing, not how well he can function without it. (p. 344)

Rochester Method

"The Rochester Method of instructing the deaf is both manual and oral. It is unique in utilizing the manual alphabet and speech, simultaneously, to develop both language and speech for the deaf" (Galloway, 1963, p. 1). Scouten (1963) provided the following description of the Rochester Method:

Under the Rochester Method speech is taught in the sequence described for the oral method. Therefore, it is mandatory that in their instruction of subject matter they supplement their speech with fingerspelling . . . while the Rochester Method has been recently termed neo-oralism, the important fact is that its chief emphasis is always upon the language in its most visible forms. (pp. 432-433)

Simultaneous Method/Simultaneous Communication

Moore (1970) defined the Simultaneous Method/Simultaneous Communication as follows:

This is a combination of the Oral Method plus signs and fingerspelling. The child receives input through speechreading, amplification, signs and fingerspelling. He expresses himself in speech, sign, fingerspelling. Signs are differentiated from fingerspelling in that they represent complete words or ideas. A proficient teacher will sign in coordination with the spoken word,

using spelling to illustrate elements of language for which no signs exist; e.g., some function words such as *of*, *and*, *the*, and indications of some verb tenses. (p. 25)

Total Approach/Total Communication (TA/TC)

Holcomb (1971) defined the Total Approach as follows:

The Total Approach is using everything and anything that will help the children here and now. Among the many factors which make up the Total Approach are the parents, the hearing children, the community, extra-curricular activities, the curriculum, the teacher and Total Communication. . . . While all things in Total Approach are vital Total Communication is basic. (pp. 522-524)

Denton (1972) defined Total Communication as follows:

By Total Communication is meant the right of a deaf child to learn to use all forms of communication available to develop language competence at the earliest possible age. This implies introduction to a reliable receptive-expressive symbol system in the preschool years between the ages of one and five. Total Communication includes the full spectrum of language modes: child devised gestures, formal sign language, speech, speechreading, finger-spelling, reading and writing. Every deaf child must have the opportunity to develop any remnant of residual hearing for the enhancement of speech and speechreading skills through the use of individual and/or high fidelity group amplification systems. The ultimate key to academic success appears to be reading comprehension skill. (p. 53)

A Comparison of TA/TC and the Simultaneous Method/Simultaneous Communication

Caccamise and Drury (1976) stressed that the most detrimental confusion among the above defined terminology involves the terms Total Approach/Total Communication (TA/TC) and Simultaneous Method/Simultaneous Communication. Blevins (1972), Dale (1974), and Nix (1972) have suggested that TA/TC is just a new term for an old methodology called the Simultaneous Method:

1. "Total communication is a new term for an old system. Gallaudet College and many residential schools have used the system for quite a few years under the name Simultaneous Method" (Blevins, 1972, p.4).
2. "The Total Approach . . . appears to be similar to the Simultaneous Method . . . except that integration into ordinary schools is an additional feature in a few programs" (Dale, 1974, p. 15).
3. "The advocates of TC are using what has been known for years as the 'simultaneous method' and have begun incorporating the chalkboard and other media" (Nix, 1972, p. 1).

The definitions cited earlier, however, suggest that there is a difference between TA/TC and the Simultaneous Method/Simultaneous Communi-

cation. Therefore, it may be that Blevins, Dale, Nix, and others are responding to the fact that persons labeling their programs or methods as TA/TC are using the Simultaneous Method exclusively. Katz (1974) stated that, "Programs are being called TOTAL COMMUNICATION and they are not" (p. 3). Included in Katz's list of "basic elements that must exist in a total environment in a school" was "Speech therapy is given to each child consistently" (p. 3). Moores (1972), in describing the often cited problem of the lack of adequately trained teachers for hearing-impaired students, provided support for Katz: "Classroom observation suggests that many teachers who are starting to use Total Communication . . . are woefully inept, although committed to the concept" (p. 8). Such teachers may lead some people to acquire a negative attitude toward TA/TC, when actually they are responding negatively to a particular teacher's instructional method and/or skills.²

It is generally accepted that TA/TC includes both oral-aural and manual/sign communication modes. Confusion comes in deciding whether or not it involves more than simply signing and talking at the same time. The writings of many people involved in education of deaf and hard-of-hearing students suggest that TA/TC does involve more. Following are three examples of these writings.

Total Communication (T-C) is a non-discriminatory approach to communication and human interactions, involving deaf children from birth throughout their educational process. It is not a specific instructional method nor is it a rigid communication method. It is a philosophical approach based upon the premise that every child has a right to take full advantage of his environment and to have equal educational opportunities, and this is possible only when the prerequisites for cognitive development (specifically language acquisition) are met. . . .

Total Communication differs from the Simultaneous Approach in two major ways, 1) Emphasis and 2) Purpose.

The Simultaneous Approach is merely a communication tool for the teacher to assist in conveying content. . . . Total Communication . . . goes beyond merely providing the student with an opportunity to understand from whatever method he can. It not only insures two-way communication, but begins at as early an age as is possible in order to provide as full a language environment as is possible while retaining the goal of oral/aural training to the degree the child is capable. . . . The purpose is not only to enable the child to gain knowledge, but to develop all his skills to the fullest of his potential without slighting any aspect of growth for the sake of others. (Brasel, 1974, pp. 1-2)

I want to emphasize that total communication is definitely not a method per se; it is not a rejection of the oral method nor is it opposed to other known methods. It is just a system providing a child with the opportunity to use any of the methods that will work out best for him to meet his educational

²For a "current" critical review of Total Communication and Simultaneous Communication that reflects this problem, readers are referred to Ross and Calvert (1984).

aspirations in any situation. (Carbin, 1975, p. 16)

The goal of Total Communication is to provide opportunities for full communication for all. . . . There are many deaf people who do not even know sign language, nor can they speechread so, to them, simultaneous communication could be little or no communication at all. (Holcomb, 1975, p. 1)

Caccamise and Drury discussed their awareness of statements in the literature which could lead one to conclude that TA/TC and Simultaneous Communication are different terms for the same thing. They stressed, however, that the definitions by Denton, Holcomb, and Moores cited earlier, and the writing of Brasel, Carbin, and Katz, indicate that TA/TC is a philosophy of education, while Simultaneous Communication is a method of communication. In a TA/TC based program, American Sign Language (ASL), Manually Coded English (MCE) (with and without speech) and Oral-Aural (spoken) Communication (without signing) may be used, depending on individual student needs and educational objectives. In essence, TA/TC is a philosophy which supports the use of many different methods, whereas Simultaneous Communication is only one of these methods.

An Updated Comparison of TA/TC and the Simultaneous Method/ Simultaneous Communication

The educational philosophy and methodology definitions reported by Caccamise and Drury for the terms Oralism, Oral Method, Oral-Aural Method, Auditory Approach/Acoustic Method/Acoupedics, and Rochester Method have remained stable in their usage. Confusion, however, regarding the Total Approach/Total Communication (TA/TC) and the Simultaneous Method/Simultaneous Communication still persists. Since the publication of the Caccamise and Drury article, the Conference on Executives of American Schools for the Deaf (CEASD) stated its official definition of Total Communication:

Total Communication is a philosophy requiring the incorporation of appropriate aural, manual, and oral modes of communication in order to ensure effective communication with and among hearing-impaired persons. (Adopted May 5, 1976, Rochester, New York) (Brill, 1976, p. 358)

This definition by CEASD, however, has not cleared up the confusion surrounding the use of this term. Reaction to this officially adopted definition of Total Communication has not been entirely favorable. Crammatte (1978) indicated his concern as follows:

My concern is with apparent deletion from the philosophy of Total Communication an aspect held to be vital by both the philosophy's creator, Roy Holcomb, and its first proponent, David Denton. In their statements of this philosophy, communication between parents and child always has held a prominent place. To make a whole child requires ease of communication in

all phases of its life. This is especially true in the very early years when self-concepts are rooted and language is acquired, as linguistic research has demonstrated. It is beyond my comprehension why, in the officially adopted definition of Total Communication, this vital aspect of the philosophy was omitted. (p. 427)

Moore (1982) stated that:

The term *total communication* came into popular use during the 1970s. At present, some educators consider it an extension of the simultaneous method, whereas others see it as a system based on children's individual needs. (p. 9)

Garretson (1976) provided further elucidation of the issues surrounding the term Total Communication:

In recent years, a number of efforts have been made to reach consensus on an acceptable definition of total communication. Regardless of the sometimes hairsplitting semantic and theoretical differences among definers, explicators, and discussants, a pervasive stream of agreement appears in these salient assumptions: (a) the concept of a philosophy rather than a method, (b) a combining of aural/oral-manual modes according to the communicative needs and the expressive-receptive threshold of the individual, and (c) the moral right of the hearing impaired, as with normally hearing bilinguals, to maximal input in order to attain optimal comprehension and total understanding in the communication situation. (p. 89)

Considering the above, it seems best to rely on the definitions originally stated by Holcomb and Denton which, along with Garretson's remarks and the explanations of Caccamise and Drury, encapsulate the original intentions of TA/TC proponents and should be reflected in educational practice.

In addition to the definition of the Simultaneous Method/Simultaneous Communication contained in Caccamise and Drury, Caccamise (1978) provided a definition that stressed simultaneous communication (SC) (a) involves the use of spoken and sign communication together, (b) includes receptive and expressive communication, (c) includes the use of amplification as appropriate, and (d) for receptive and expressive SC at least one element from each box in Table 1 must be included.

AMERICAN SIGN LANGUAGE (ASL) AND MANUALLY CODED ENGLISH (MCE) SYSTEMS

Since the Caccamise and Drury publication, significant gains have been made in knowledge about ASL and approaches to signing English. This section is divided into three parts: (a) an update of terminology for and descriptions of ASL and sign English/Manually Coded English (MCE) systems, (b) a brief discussion designed to assist in reducing confusion in the use of this terminology, and (c) a comparison of ASL, MCE systems, and spoken English.

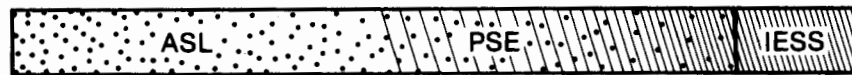
Table 1
Elements of Simultaneous Communication (SC)

	Modes of Communication	
	Spoken	Manual
Receptive	1. listening 2. speechreading	1. signs 2. fingerspelling
Expressive	1. speech 2. lips movement for speech with & without voice	2. signs 2. fingerspelling

An Update of Terminology and Descriptions of ASL and MCE

Table 2 and Figures 1 and 2 provide a listing and graphical representation of general characteristics of American Sign Language (ASL) and approaches to the manual coding of English. (Figures 1 and 2 reflect the fact that ASL and English borrow from and influence one another. This is expanded upon later in this section.) Manually Coded English (MCE) is a general term that may be used to refer to (a) signing that involves a combination or mixture of English and ASL characteristics (Pidgin Sign English), (b) invented sign systems for English (e.g., Seeing Essential English, Signing Exact English, and the Gallaudet Signed English Preschool System), and (c) fingerspelling. In addition to ASL and MCE, in-groups signs and signing are discussed in this section.

American Sign Language (ASL). ASL is a manual-visual language communicated primarily through the hands and face, in which sign-words develop and evolve through natural processes based on sign communicators'



 = Features of American Sign Language (ASL)

 = Features of English (Spoken/Written)

PSE = Pidgin Sign English

IESS = Invented English Sign Systems Based Totally on Spoken and / or Written English

Figure 1. Sign Language Continuum: American Sign Language (ASL), Pidgin Sign English (PSE), and Invented English Sign Systems (IESS).

Table 2 Continued

CODE OR LANGUAGE	SIGN BASE	WORD ORDER	FINGERSPELLING	INVENTED SIGNS FOR ENGLISH GRAMMAR	VOCABULARY
AMERICAN SIGN LANGUAGE (ASL)	Meaning	ASL	Minimal	No	No
PIDGIN SIGN ENGLISH (PSE)	Meaning	English	More than ASL and ME	?	?
SIGNING EXACT ENGLISH (SEE ₂)	2 of 3 ^a	English	More than ASL, less than PSE	Yes	Yes

^aSpelling, meaning, and pronunciation: If any two of these three are the same for two or more words, then the two words are signed the same. For example, the word *right* would be signed the same in the following three examples since spellings and pronunciations are the same, although meanings are different: (a) *right* answer, (b) *right* turn, and (c) *right* to vote. However, *write* and *right* would be signed differently since their spellings and meanings are different (although both words are pronounced the same).

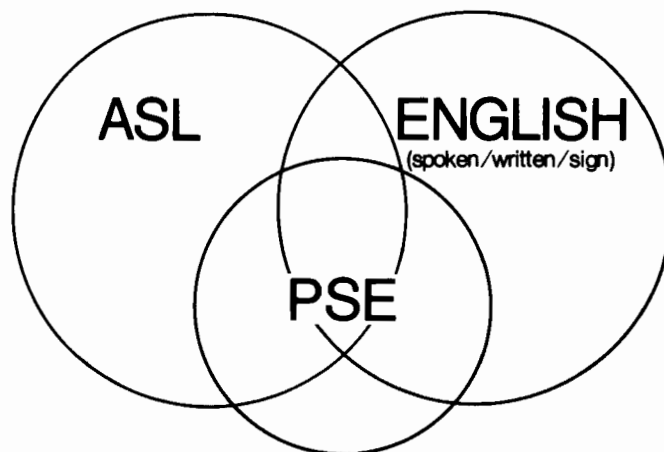


Figure 2. Graphical depiction of the fact that American Sign Language (ASL) and English borrow from and influence one another.

needs, culture, and manual-visual communication modes. Linguists have succeeded in generating phonological, morphological, and syntactic descriptions of ASL using concepts and methods similar to those used in analyzing spoken languages (Battison, 1978; Bellugi & Newkirk, 1981; Klima & Bellugi, 1979; Stokoe, Casterline & Croneberg, 1965; Wilbur, 1979). Major characteristics of ASL include the use of space and directionality of movement (e.g., to establish actor-agent relationships), and inflections in which variations in the four basic sign parameters or types of phonemes (handshapes, positions, orientations, and movements) are used to change and extend information conveyed by signs. For example, changing the handshape and movement of the sign WEEK from "index-handshape and short, forward movement" to a "V or 2-handshape and a semi-circular, longer forward movement" can be used to indicate TWO WEEKS IN THE FUTURE. Another example of inflection is repeating the movement for the sign WEEK to represent WEEKLY; i.e., repetition of the movement parameter is used to change the noun WEEK to the adverb WEEKLY.³

ASL grammar also involves non-manual (use of the body other than the hands) as well as manual signals (Siple, 1978). For example, in ASL a body shift backwards and raised eyebrows may be used to mark the beginning of a subordinate clause, with a shift forward and normal eyebrow position marking the end of the clause. Conditional statements (If-Then) are often introduced with the sign SUPPOSE accompanied by a body shift backward and raised shoulders. The consequences in conditional statements are marked by a body shift forward and lowering of the shoulders. The complexity of the

³As is traditional in the sign literature, English glosses for traditional signs are printed with all capital letters.

grammatical system of ASL is also illustrated by the system of classifiers which skilled ASL signers use; e.g., the width of an object can be accurately specified by the distance between and/or number of fingers used to describe the object and the “three-handshape” can be used to indicate that a vehicle is involved in the action described. Although a separate, distinct language from English, ASL is influenced by English; e.g., basic ASL sign-word order is Subject-Verb-Object (Fischer, 1975; Hoffmeister, 1982) and one process for coining new ASL signs is through borrowing from English spelling (Battison, 1978). At present there is no standard form for writing ASL.

Pidgin Sign English (PSE). PSE combines the salient features of both English and the manual-visual communication modes (Hawking, 1983; Reilly & McIntire, 1980; Woodward, 1973a). “Pidgins” for oral/spoken languages are characterized by reductions, mixtures, and new structures when compared to the two “original” spoken languages. PSE involves varying combinations and modifications of ASL and English features; i.e., signs are basically connected in English word order, sign word selection is based on current sign usage by skilled users of MCE and ASL with a meaning base to signs generally maintained, and such ASL characteristics as use of space, directionality, and inflections are included. Also, similar to ASL, repetition of movement may be used to mark adverbs (e.g., WEEKLY, MONTHLY). Siglish, Ameslish, and Sign English are terms that have been used for PSE forms of signing. Signed English (Stokoe, 1970) is another label that has been applied to this type of signing. PSE may be used with or without speech.

Manual English (ME). In ME signs are linked together in English word order, and signs are primarily based on English spelling and pronunciation, with meaning serving a lesser role in sign selection and usage. The major ME systems are Seeing Essential English (SEE 1), Signing Exact English (SEE 2), and the Gallaudet Preschool Signed English System.⁴ Publications on Manual English include: (a) for SEE 1, Anthony (1971; 1978a, b); (b) for SEE 2, Gustason, Pfetzing, and Zawolkow (1980), Gustason and Woodward (1973), and Gustason and Zawolkow (1980); and (c) for the Gallaudet Preschool Signed English System, Bornstein (1973a, b) and Bornstein, Saulnier, and Hamilton (1983). These systems include borrowed sign markers/affixes from ASL and invented signs for English affixes and vocabulary. For example, all three ME systems referred to above have invented signs for the “-ly” adverbial affix. Thus, “weekly” would be signed by adding this invented adverbial sign marker to the base sign word “week.”

SEE 1 and SEE 2 started with similar rules for sign invention and selection based on three word types: (a) base words (composed of a single free morpheme), (b) complex words (composed of a free morpheme and bound

⁴Other ME systems include the Washington State School Manual English System (Stack, 1972) and Linguistics of Visual English (LOVE) (Wampler, 1971).

morpheme/affix), and (c) compound words (composed of two or more free morphemes). The rule for base words was the two-of-three (2-of-3) rule based on English spelling, pronunciation, and meaning. In brief, if any two of these three were the same for two or more English words, then these words were signed the same. For example, "right" would be signed the same for "right answer" and "right to vote" since the spelling and pronunciation of these words are the same, though their meanings are different. However, "right" and "write" would be signed differently since their spellings and meanings are different, though their pronunciation is the same. (See Tables 2 and 3 for right-write and additional examples of this 2-of-3 rule.) The rule for complex words was to combine a base word sign with a sign affix or marker. For example, "books" would be signed as the base word "book" + the "S-handshape" (regular, plural sign affix), and "walked" would be signed as the base word "walk" + the "D-handshape" (regular, past tense sign affix). The rule for compound words was that if the meaning of the two words separately is consistent with the meaning of the two words together, then and only then should they be signed as combinations of the two base word signs. For examples, "underline" would be signed as "under" + "line" since the meanings of the two words separately are related to the compound formed when they are joined together, but "understand," having no relation to the meaning of the words "under" and "stand," would not be signed "under" + "stand."

The current status of the major ME systems may be summarized as follows: (a) SEE 1 signs are primarily based on English syllables (for example, "window" is signed as WIND + OW, "always" as AL + WAY + S, and "evaluate" as E + VAL + U + ATE); (b) SEE 2 signs are primarily based on the two-of-three rule involving English spelling, pronunciation, and meaning, with some attention to current phonological and morphological information available for ASL signs (see Gustason et al., 1980, pp. xiii-xvi); and (c) the Gallaudet Preschool Signed English System includes ASL and invented signs, with extensive use of letter cues and compounding (e.g., the traditional ASL sign for FOREST has been changed from a "5-handshape with a semi-circular, shaking movement in front of the signer" to an "F-handshape with a stationary, shaking movement in front of the signer," the traditional ASL sign for CAN has been changed from "S-handshapes" to "M-handshapes" on both hands to represent "may," and the traditional ASL signs for SIDE and WALK have been combined to represent "sidewalk"). In theory, all three of these Manual English systems use the rules for complex and compound words stated earlier to build-upon the base sign words invented and selected. Also, in theory SEE 2 and the Gallaudet Preschool Signed English System invent and select affixes or bound morphemes based on meaning, although both these sign systems use the "S-handshape" to mark the regular noun plural and third person verb singular. SEE 1 invents and selects affixes based on English spelling. When used for communication,

Table 3
 Sign-Word Examples for Signing Exact English (SEE 2)
 Based on the Two-of-Three Rule (Spelling, Pronunciation and Meaning)

	EXAMPLES	SPELLING	PRONUNCIATION	MEANING	SIGNS
HOMOGRAPHS	wind, object ^a	Same	Different	Different	Different
HOMONYMS	right, run ^b	Same	Same	Different	Same
HOMOPHENES	write/right, fair/fare ^c	Different	Same	Different	Different

^aThe *wind* is strong and *wind* the clock; Put the *object* on the table and I *object* to that.

^bThat is the *right* answer, it is my *right* to vote, and turn *right*; That was a long *run*, she had a *run* in her stocking, he will *run* the meeting, etc.

^cPlease *write* your answer and that is the *right* answer; My teacher is very *fair* and the *fare* cost too much.

Manual English systems may or may not involve the use of space, sign directionality, and other characteristics consistent with ASL and PSE grammar.

Fingerspelling. Fingerspelling involves the use of handshapes, movements, and orientations to represent letters of the alphabet and ampersand (and). Fingerspelling is used with all of the sign languages/systems discussed above, although it may also be used alone for communication. Visible English and the Rochester Method involve the use of fingerspelling and speech together without signs.

In-Group Signs/Signing. In-group signs/signing refers to signs and signing understood by a relatively small group of people. In-group signs may be subdivided into the following:

1. *Home Signs:* Signs developed and used by individual families. These may range from near-mime gestures to more sophisticated signs used only by family members, and they are generally limited to relatively few sign-words. They may be used by hearing families with no contact with adult hearing-impaired signers, or by hearing-impaired families in a manner akin to "family jokes."
2. *School Signs:* Generally signs developed and used by children in a school setting, often because of the lack of skilled adult sign models. They are often not understood by hearing-impaired adults in the community. School signs should not be confused with "Childrenese" which is likely related to the natural process of sign language development (be it ASL or MCE) in children (see Cokely & Gawlik, 1974, for a discussion of Childrenese as a pidgin language).
3. *Local Signs:* Signs which are somewhat like regional dialects. The sign for "football," for instance, may vary from region to region, just as a sandwich may be called in English a hoagie, submarine, grinder, hero, poor boy, etc.

When any of the above signs are used for communication purposes, they may be labeled *in-group signing*. In-group sign systems range from rudimentary systems that express immediate needs, to systems that develop grammatical structures permitting more complex communication. Signs from formal sign systems (ASL and MCE) may be combined with in-group signs for purposes of communication.

A BRIEF DISCUSSION ON THE USE OF ASL AND MCE TERMINOLOGY

Confusion in the use of terms and definitions for ASL and sign systems for coding English is due in part to (a) recently developed widespread interest in the study of ASL and MCE from structural linguistic and sociolinguistic perspectives, and (b) the increased use of signing in educational programs for

deaf and hard-of-hearing students. Educational considerations have led some people to develop “artificial” systems for manually representing English, as well as new terminology to clarify and classify these sign systems for English.

It is important to realize that just as there are different spoken languages around the world, there are also different sign languages. ASL is no more universal than English, French, or Russian (Lane & Grossjean, 1980). Sign languages used by deaf people in various countries are generally just as mutually unintelligible as are any two spoken languages. It is also important to understand that sign languages developed through natural usage by deaf people and their children are generally not manual representations of the spoken languages in the countries in which these sign languages are being used. Further, just as spoken English has dialects, ASL has regional and socio-economic dialectical variations (Stokoe, Casterline, & Croneberg, 1965; Woodward, 1976). Similar to dialectical variations for spoken English, dialectical differences in ASL are not so great as to cause problems in communication for competent ASL users.

Although ASL and English are separate, distinct languages, it is possible to combine the important aspects of both ASL and English for purposes of communication. This naturally developed combined ASL-English signing, as stated earlier, is called Pidgin Sign English (PSE). PSE has developed out of the need for native users of ASL and native users of English to communicate with each other. Since one of its most distinguishing characteristics is English word order (usually), PSE is placed under the general heading of Manually Coded English (MCE) in Table 2. It is difficult, however, to clearly separate PSE from ASL (see Figures 1 and 2). Because it is a naturally developed system used by native users of ASL and native users of English to communicate, the mixtures of ASL and English features are not always clearly defined and, depending on the user, may look more or less like ASL or English.

Some other names or labels for ASL and PSE are listed in Table 2. Under ASL the term *Ameslan* is used as an acronym for American Sign Language. Some linguists and teachers of sign language would classify *Ameslan* as one dialect of ASL (Fant, 1975-75).

The Manual English (ME) systems listed in Table 2 are primarily an

⁵There is historical precedent for these “recent” developments in the fields of sign language and deaf education. Moores (1982) reported that de l’Epee (one of the early advocates of the use of signing in deaf education in France, 1712-1789) “. . . developed what he called ‘methodological’ signs to supplement the natural sign language. The methodological signs represented both an expanded vocabulary of the signs in use by French deaf people, and an attempt to adapt this sign language to French syntax and morphology” (p. 47). Similarly, in the United States disagreement arose among supporters of signing during the Nineteenth Century, with some educators favoring “methodological” signs following English word order, others in support of “natural” sign language with a word order different from English, and a third group placing greater reliance on the manual alphabet or fingerspelling (for example, the Rochester Method) (Moores, 1982).

outcome of educational concerns. In the late 1960's and early 1970's, as signing began to be recognized as an important component in educational programs for deaf and hard-of-hearing students, educators began to develop manual or sign English systems that attempted to match spoken and/or written English more exactly than ASL or PSE. The theory behind this development was that if spoken and/or written English is fully visible through signs to hearing-impaired children from an early age, they will acquire greater understanding and usage of English than if they are exposed to ASL or PSE. Because there is not a perfect match between ASL and spoken/written English vocabularies, word orders, and other language/grammatical rules, some educators have felt the need to invent signs for English affixes and vocabulary, and to use this form of signing exclusively in academic settings. On the other hand, some educators and others have taken a bilingual, bicultural perspective, supporting the use of both ASL and a form of sign or manually coded English that includes salient features of both English and manual-visual communication (Albertini, Meath-Lang, & Caccamise, 1984; Caccamise, Brewer, & Meath-Lang, 1983; Caccamise & Hicks, 1980; Gustason, Pftzing, & Zawolkow, 1980; Kannapell, 1974, 1980). Using the "approaches" summarized in Table 4, Albertini et al. provided an overview of "possible" monolingual and bilingual programmatic approaches to language instruction and use with native ASL signers.

Since the Manual English systems listed in Table 2 are recent developments in the field of sign language, and because their primary use is in educational settings rather than for social communication, deaf and hard-of-hearing students are more likely to be familiar with some of the signs invented/developed for use in signing English than the average older deaf person.

Descriptions and Comparisons of ASL, MCE, and Spoken English

The general types of sign languages/systems discussed thus far are American Sign Language (ASL), Pidgin Sign English (PSE), Manual English (ME), fingerspelling and in-group signing. This sub-section expands upon the previous descriptions of ASL and sign systems for coding English.

One of the most difficult things for native English speakers (who do not know sign language) to realize is that it is possible and likely that native users of ASL make no mental references to spoken English words when they communicate in ASL. As a parallel, native speakers of French do not think in English words as they speak in French. Native ASL signers need not think, vocalize, or mentally say the English words "Mother loves me" as they sign these concepts. The signs themselves convey these meanings as surely as spoken English words do for native speakers of English and spoken French words do for French speakers. The fact that ASL signs may be translated into English words does not mean that these English words encompass the total meaning of the signs. ASL signs do not necessarily have one-for-one translations into English; this is a common phenomenon for translation

Table 4
 Monolingual and Bilingual Programmatic Approaches
 to Language Instruction and Use^a

Programmatic Approach	First Language (L₁)	Second Language (L₂)	Historical/Cultural Information (L₁)^b	Content Instruction (Math, History, Science, etc.)
Asymmetrical/Immersion (Monolingual)	Not Used	Used Exclusively	May/May Not Be Tolerated Not Taught	In L ₂ Only
Transitional/Compensatory (Bilingual-to-Monolingual)	Used for Educational Orientation and Some Explanation	Used Exclusively once Adjustment to Educational Setting has Occurred	May/May Not Be Taught	In L ₂ Primarily
Maintenance (Bilingual)	Used to Maintain Present Skills Used for Cultural Concerns	Stressed, especially academic skill areas	Taught	In L ₂ , but L ₁ Used "Informally" and in Culture-Based Situations
Enrichment/Plural (Bilingual)	Used in All Areas	Used in All Areas	Taught	In Both L ₁ and L ₂

^aThis table is from Albertini, Meath-Lang, and Caccamise (1984).

^bHistorical/cultural information for L₂ is taught in all programmatic approaches listed.

among all languages (Fischer, 1982).

At the grammatical level, as well as word level, there are both similarities and differences between ASL and spoken English. One important difference between ASL and spoken English is due to the manual-visual modalities of sign versus the oral-aural modalities of speech. In ASL signers are able to use space and movement to incorporate ideas into a single sign that require several words in spoken English. For example, by modifying the direction of movement, which hand is active, and location, all of the following English expressions, which require more than one spoken word, can be conveyed with one sign in ASL (given that the conversational context *has been* used to spatially establish the actors and agents in each expression). This property of some ASL verbs has been termed directionality.⁶

We met.	I gave it to you.
I met each of them.	I gave it to him.
He came up and met me.	He gave it to her.

Another interesting feature of ASL is the manner in which questions are expressed. For yes/no questions such as "Do you like me?", facial expression and body posture function as the interrogative elements during the production of signs translated in English as "like" and "me." The result is a yes/no question translated in English as "Do you like me?" For questions requiring an interrogative word, such as "Where do you work?", the preferred order would be, "WORK WHERE?" (although "WHERE WORK?" would also be acceptable).

Because of the visual nature of signing, an outstanding characteristic of ASL discourse is the predominance of the general principle which says, "Show rather than tell about." In a signed discourse a signer will often make use of classifiers, which are a special set of signs that can be used to describe objects, places, people, and actions. In signing, classifiers often serve as pronouns. Classifiers have been described by Baker and Cokely (1980), Humphries, Padden, and O'Rourke (1980), Kantor and Hoffmeister (1983), Klima and Bellugi (1979), and Newell and Holcomb (1984).

A definition of Pidgin Sign English (PSE) was provided earlier. It is important to remember that PSE is a naturally developed sign system that is primarily used for communication between native users of ASL and English. As such, it is most often used both formally and informally when hearing-impaired (deaf and hard-of-hearing) and hearing people are together. Because PSE generally follows English word order, it is possible to simultaneously speak and sign when you use PSE. Although PSE may be categorized as a manual code for English, it should be distinguished from the next

⁶Given that it generally requires longer to produce sign-words than spoken words and that ASL is a *manual-visual* language that developed in a *natural* manner in the United States, it is the authors' belief that "good" sign English/MCE will include many of the lexical and grammatical features traditionally associated with ASL.

category of sign or manual communication systems which are considered artificial sign codes for English. PSE users rely on their understanding of English inflectional processes, aspects of ASL inflection, and other cues such as context and fingerspelling when communicating with PSE.

Manual English (ME) systems generally attempt to represent spoken and/or written English through the use of one sign for each English word and affix (prefixes and suffixes).⁷ Since many English affixes do not have sign equivalents in ASL (because ASL signs are often inflected by facial expression, movement modifications, and/or body posturing), the ME systems include invented signs for affixes in order to more closely match spoken English. Some examples of these invented signs for English affixes are the signs for “-ly, -tion, -ment, and -ness”. Fingerspelling is generally limited in strict ME systems because these systems were initially developed for use with young children, and it was thought that fingerspelling would be too difficult for young children. In addition to developing signs for English affixes, the ME systems developed signs for some English vocabulary that do (did) not exist in ASL; for example, signs for “the, is, am, are, and of”.

In summary, the general characteristics of Manual English are: (a) English word order; (b) sign choices based on English spelling, pronunciation, and/or meaning; (c) invention of new signs and restriction of the meaning of some ASL signs to one English word; (d) invented signs for English affixes; and (e) minimal fingerspelling.

For further comparison between ASL and MCE, three expressions are glossed below from an ASL perspective as they would be signed using ASL, PSE, and Signing Exact English (SEE₂). In reviewing these sample expressions, the following should be noted:

1. A sign is represented with all capital letters.
2. The superscript line represents the duration of certain non-manual aspects (facial expression and body postures) which accompany the signed utterances.
3. The superscript letter “q” represents facial expression and body posture which are used to indicate that a yes/no question is being asked.
4. The superscript “wh-q” represents facial expression and body posture that accompany who, what, where, when, why, and which questions.
5. A “t” superscript indicates that facial expression and body posture are being used to indicate a topic is being expressed.

⁷One of the problems for those who try to sign “exact” English is that they base “exact” English on written grammatical English. However, just as the grammar of spoken and written English are not exactly the same, the grammars of sign and written English will also likely differ. Naturally, attempting to base sign English on spoken English alone does not resolve this dilemma, however, since differences in language structures based on the modes/channels through which they are expressed and received must be considered (Caccamise, Brewer, & Meath-Lang, 1983).

6. Hyphens connecting capital letters indicate a fingerspelled word.
7. Hyphens connecting words indicate that the string of connected words represents one sign or a compound sign.
8. Underlining of the first letter of a word indicates that the fingerspelled or manual alphabet letter handshape is used as the handshape for the sign. These are referred to as "initialized" signs.
9. Underlining of a whole word indicates an invented SEE₂ sign (other than initialization of ASL signs).
10. Words written in parenthesis provide further information, including how a sign is produced and alternative signs that are acceptable.

Expression 1: Where do you live?

ASL: $\overline{\text{LIVE WHERE}}^{\text{wh-q}}$

PSE: $\overline{\text{WHERE YOU LIVE}}^{\text{wh-q}}$ or $\overline{\text{WHERE D-O YOU LIVE}}^{\text{wh-q}}$

SEE₂: $\overline{\text{WHERE ACT YOU LIVE QUESTION-MARK}}^{\text{wh-q}}$

Expression 2: I gave you the money yesterday.

ASL: $\overline{\text{YESTERDAY MONEY FINISH ME-GIVE-YOU}}^{\text{t}} \text{nod}$

PSE: ME-GIVE-YOU MONEY YESTERDAY or
ME GIVE YOU MONEY YESTERDAY

SEE₂: I HAND-TO+PAST YOU THE MONEY YESTERDAY

Expression 3: I took a hike in the woods yesterday before lunch.

ASL: $\overline{\overline{\text{YESTERDAY BEFORE EAT-NOON}}^{\text{t}} \text{ or } (\text{LUNCH})}^{\text{t}}$
 $\overline{\text{FOREST THERE ME WALK-WALK}}^{\text{t}}$ (in casual manner)

PSE: ME WALK-WALK (in casual manner) IN FOREST
YESTERDAY BEFORE LUNCH (or EAT-NOON)

SEE₂: I TAKE + PAST A HIKE (WALK with H-handshapes) IN THE
WOOD (TREE with W-handshape)+S YESTERDAY
B+BEFORE LUNCH

CONCLUSION

Current terminology for deaf education philosophies and methods and signing has been defined and discussed. This review, hopefully, will promote understanding and consistency in use of terminology, and thus contribute to meaningful dialogue concerning issues related to education and rehabilitation for deaf and hard-of-hearing students and clients.

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